



COUNTY COUNCIL OF THE COUNTY OF LANARK.

---

# ANNUAL REPORTS

OF THE

COUNTY AND DISTRICT MEDICAL OFFICER

AND THE

DISTRICT SANITARY INSPECTORS

FOR THE YEAR 1930.





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FOR THE YEAR 1930.

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GLASGOW :

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# STAFF.

## COUNTY HEALTH DEPARTMENT.

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### County and District Medical Officer.

J. HUME PATTERSON, F.R.F.P.S.(G.), D.P.H.

### Assistant Health Officers and Tuberculosis Officers.

#### *Middle Ward District—*

J. M'CALLUM LANG, M.D., D.P.H.

DAVID R. HAMILTON, M.A., M.B., Ch.B., D.P.H.

DOUGLAS BROWN, M.B., Ch.B., D.P.H.

CATHERINE B. WILSON, M.B., Ch.B., D.P.H.

LESLIE J. LANG, M.B., Ch.B., D.P.H.

#### *Upper Ward District—*

GEO. W. MURRAY, M.B., Ch.B., D.P.H.

#### *Lower Ward District—*

G. MACLEOD MILLAR, M.B., Ch.B., D.P.H.

### Bacteriologist.

T. GOW BROWN, M.B., Ch.B., D.P.H.

### Chemist.

WALTER BROWN, F.C.S.

### Senior Inspectors—Food and Drugs, Rivers Pollution, &c.

CHARLES MACARA.

FRANK M'ARTHUR.

### District Sanitary Inspectors.

#### *Middle Ward District—*

JOHN MILLAR.

#### *Upper Ward District—*

WILLIAM PATERSON.

#### *Lower Ward District—*

JOHN B. PHILIP.

COUNTY COUNCIL OF THE COUNTY OF LANARK.

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R E P O R T  
OF THE  
COUNTY MEDICAL OFFICER OF HEALTH.  
YEAR 1930.

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**LOCAL GOVERNMENT (SCOTLAND) ACT, 1929.**

On 16th May, 1930, the functions of the Education Committee, the District Committees, and the Parish Councils were transferred to the County Council. As a preliminary step in the reorganisation of the Department, the Public Health offices of the Upper Ward District Committee at Lanark, and of the Lower Ward District Committee in Glasgow, were abolished and only such accommodation retained as would serve as a place of call. The staffs were transferred to the central offices in Hamilton where all the *Public Health functions of the former County Council and District Committees* were co-ordinated and amalgamated.

The transfer of the *functions of the two small Burghs*—Lanark and Biggar—was easily effected as the County Medical Officer already held the appointment of Medical Officer of Health.

The scheme of administrative arrangements adopted by the County Council provided for the transfer of the following *Poor Law functions* to the Public Health Committee, viz. :—

- (1) The medical treatment of the sick poor, blind persons, and persons mentally defective.
- (2) The functions of the County Council under the Lunacy and Mental Deficiency Acts other than the domiciliary care and supervision of lunatics and mental defectives, referred to the Public Assistance Committee.
- (3) The functions of the County Council with regard to (a) Part I of the Children Act; (b) the Registration of Births, Deaths, and Marriages (Scotland) Acts, 1854-1910; (c) the Vaccination (Scotland) Acts, 1863-1907.

The *medical inspection and treatment of school children* remains a function of the Education Committee, but the service has been co-ordinated with the other health activities of the County Council by the appointment of the County Medical Officer to be Chief Administrative School Medical Officer and the administrative head of the whole Public Health Department, including *Veterinary* and *Sanitary* functions.

### **Medical and Nursing Staffs.**

*Medical Staff.*—The County Medical Officer is the Chief Administrative Officer of the whole Public Health Department, including the medical inspection, supervision, and treatment of school children. For all public health matters, other than school health administration, he is assisted by the Chief Assistant Medical Officer of Health and six Assistant Medical Officers, and for school work by the Executive School Medical Officer and five Assistant Medical Officers.

*Outdoor Nursing Staff.*—Prior to the reorganisation of the staff, 23 health visitors carried out work under the Maternity and Child Welfare Scheme, 12 nurses acted as inspectors for cases of infectious disease and tuberculosis, and 20 nurses were engaged in school work. The areas and duties of these nurses have been rearranged, as follows:—1 senior nurse acts as supervisor of the whole outdoor nursing staff; 3 nurses are fully employed in charge of the Health Institutes at Cambuslang, Blantyre, and Shotts; 18 nurses, with suitable qualifications, do Child Welfare work, Infectious Diseases, and Tuberculosis in their respective areas; 6 nurses do Child Welfare work alone; 5 do Infectious Diseases and Tuberculosis alone; 20 do school work.

The rearrangement of duties permitted two of the older members of the staff to be recommended for retirement and compensation.

Part-time assistance is received from 13 District Nursing Associations under the Maternity and Child Welfare Scheme, and consideration has been given to the possibility of utilising the services of the district nurses in connection with the visitation of notified cases of pneumonia.

### **Review of Hospital Position in Lanarkshire.**

The following tabular statements show:—(1) Existing hospitals in Lanarkshire; (2) Out-patient departments provided and managed by the Local Authority; and (3) Ambulance facilities available in Lanarkshire.

# HOSPITALS.

## I. HEALTH AUTHORITY.

Name.	Situation.	Management.	Beds.	Remarks.
(1) INFECTIOUS DISEASES—				
County Hospital, -	Motherwell,	Local Authority Sub-Committee,	232 (Nominal),	—
Roadmeetings Hospital,	Near Carlisle,	Do.	48 (Nominal),	—
Lightburn Joint-Hospital,	Near Shettleston,	Do.	60 (Nominal) (7/8 Lanarkshire) (1/8 Glasgow),	—
(2) SMALLPOX—				
Dalserf Hospital, -	Near Larkhall,	Do.	10 (Nominal),	Presently used for Non-pulmonary Tuberculosis.
(3) TUBERCULOSIS—				
Hairmyres Colony, -	Near East Kilbride,	Do.	250 (Actual),	Arrested and quiescent Pulmonary and Non-pulmonary cases.
County Orthopaedic Hospital, -	Stonehouse,	Do.	82 (Actual),	Non-pulmonary Tuberculosis only.
County Sanatorium, -	Shotts,	Do.	54 (Actual),	Pulmonary and Non-pulmonary cases.
County Sanatorium, -	Near Longriggend,	Do.	55 (Actual),	Pulmonary and Non pulmonary cases.
Roadmeetings Sanatorium, -	Near Carlisle,	Do.	20 (Actual),	Pulmonary and Non-pulmonary cases. Adjoins and is under same administration as Infectious Diseases Hospital.

Name.	Situation.	Management.	Beds.	Remarks.
(4) MATERNITY—				
County Maternity Hospital, - - -	Bellshill,	Local Authority Sub-Committee,	33 (Actual),	—
(5) CONVALESCENT HOMES FOR MOTHERS AND CHILDREN—				
Calderbank House, -	Near Baillieston,	Do.	19 Beds, 16 Cots,	—
County Convalescent Home, - - -	Lanark,	Do	16 Beds, 20 Cots,	—
(6) POOR LAW HOSPITAL ACCOMMODATION—				∞
Omoa House, - - -	Omoa,	Sub-Committee of County Public Assistance Committee,	County proportion, 53,	Total Hospital Beds, 66.
41 Bothwell Road, Hamilton, - - -	Hamilton,	Joint-Committee of Hamilton Town Council and Lanark County Council,	37	Do. do. 54.
69 Hospital Street, Coatbridge, - - -	Coatbridge,	Sub-Committee of Coatbridge Town Council,	20	Do. do. 66.
Crosslaw House, -	Lanark,	Sub-Committee of County Public Assistance Committee.	17	Do. do. 17.
Thrashbush Home, -	Airdrie,	Joint-Committee of Airdrie Town Council and Lanark County Council,	14	Do. do. 40.
TOTAL COUNTY BEDS, 141.				

Name.	Situation.	Management.	Beds.	Remarks.
(7) MENTAL HOSPITALS—				
Hartwood Mental Hospital, - -	Hartwood,	Lanarkshire Mental Hospitals Joint-Committee,	772 (County proportion),	Do. do., 1,280.
Kirklands Mental Hospital, - -	Bothwell,	Do.	151	Do. do., 250.
Birkwood Institution, -	Lesmahagow,	Do.	72	Do. do., 120.

c

## II. VOLUNTARY HOSPITALS (Excluding those situated in the large Burghs).

Name.	Situation.	Management.	Beds.	Remarks.
St. Mary's, - -	Lanark,	Voluntary Committee,	125	—
Lockhart Hospital, -	Lanark,	Do.	16	—
Lady Home Cottage Hospital, - -	Douglas,	Do.	12	—
Cottage Hospital, - -	Blantyre,	Do.	10	---
Kello Hospital, - -	Biggar	Do.	8	—

# OUT-PATIENT DEPARTMENTS PROVIDED AND MANAGED BY THE LOCAL AUTHORITY.

Name.	Situation.	Nature of Accommodation.	Remarks.
FOR X-RAY EXAMINATIONS—			
County Hospital. - - -	Motherwell,	Fully-equipped X-Ray Dept.	—
County Orthopædic Hospital,	Stonehouse,	Do.	—
Hairmyres Colony, - - -	Near East Kilbride,	Do.	—
FOR ARTIFICIAL SUNLIGHT TREATMENT—			
Hairmyres Colony, - - -	Near East Kilbride,	6 Carbon Arc. Lamps,	Special Light Department.
		1 Mercury Vapour Lamp,	No bathing facilities for out-
		1 Uviator	patients.
County Orthopædic Hospital,	Stonehouse,	2 Carbon Arc Lamps,	Special Light Department.
		2 Mercury Vapour Lamps,	Bathing facilities for out-
			patients.
Calderbank Home, - - -	Near Baillieston,	1 Mercury Vapour Lamp	No bathing facilities for out-
			patients.
Health Institute, - - -	Cambuslang,	Do.	Bathing facilities.
Do.	Blantyre,	Do.	Do.
Do.	Shotts,	Do.	Do.
ORTHOPÆDIC CLINIC—			
County Orthopædic Hospital,	Stonehouse,	Fully-equipped Department	Out-patient
ANTE-NATAL CLINICS—			
County Maternity Hospital,	Bellshill,	Do.	Mondays, Wednesdays and Fridays at 10 a.m.
Health Institute, - - -	Cambuslang,	Fully-equipped Clinic	Out-patient
Do. - - -	Blantyre,	Do.	Two sessions per month.
Do. - - -	Shotts,	Do.	Do.



MATERNITY AND CHILD WELFARE  
CENTRES. (One session per  
week unless otherwise  
stated)—

Blantyre,	-	-	-	Health Institute,	Fully-equipped premises.	Built and designed as out-patient clinic.
Cambuslang,	-	-	-	Do.	Do.	Do.
Shotts,	-	-	-	Do.	Do.	Do.
Airdrie,	-	-	-	Town Hall,	Hall.	Two sessions per month. Hired premises.
Baillieston.	-	-	-	Miners' Welfare Institute,	Hall, consulting room, kitchen,	Hired premises.
Bellshill,	-	-	-	Co-operative Hall,	Hall, consulting room, kitchen, store room,	Do.
Bishopbriggs,	-	-	-	Church Hall,	Hall, consulting room, kitchen,	Do.
Cadzow,	-	-	-	Colliery Office,	Waiting room and consulting room.	Two sessions per month. Pre- mises free.
Carluke,	-	-	-	Town Hall,	Hall and lesser hall,	Two sessions per month. Hired premises.
Chapelhall,	-	-	-	Miners' Welfare Institute,	Hall, consulting room, waiting room, kitchen,	Do.
Chryston,	-	-	-	Public Hall,	Hall, consulting room, ante- room, kitchen	Hired premises.
Coalburn,	-	-	-	Masonic Hall,	Hall, consulting room, kitchen,	One session per month. Hired premises.
Douglas Water,	-	-	-	Do.	Waiting room and consulting room	Do.
Lanark,	-	-	-	District Offices,	Hall and kitchen	Belongs to County Council.
Larkhall,	-	-	-	Sons of Temperance Hall,	Hall, consulting room, and kitchen	Hired premises.
Newarthill,	-	-	-	Miners' Welfare Institute,	Do.	Do.
Newmains,	-	-	-	Co-operative Hall,	Do.	Do.
New Stevenston,	-	-	-	Masonic Hall,	Do.	Do.

Name.	Situation.	Nature of Accommodation.	Remarks.
Strathaven, - - -	Road Surveyor's Office,	Waiting room and consulting room,	Two sessions per month. Belongs to County Council.
Tannochside, - - -	Miners' Welfare Institute,	Hall, consulting room, ante-room, kitchen,	Hired premises.
Uddingston, - - -	Church Hall,	Hall, consulting room, ante-room,	Do.

MATERNITY AND CHILD WELFARE  
SCHEME. (Dental Treatment) —

—	Airdrie,	Private Dental Surgery,	Part-time Dentist.
—	Cambuslang,	Do.	Do.
—	Hamilton.	Do.	Do.
—	Lanark,	Do.	Do.
—	Newmains,	Do.	Do.
—	Uddingston.	Do.	Do.

MATERNITY AND CHILD WELFARE  
SCHEME (Diseases of Ear, Nose and Throat) —

Motherwell, - - -	County Hospital,	Fully equipped out-patient department,	Two Sessions per month.
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MATERNITY AND CHILD WELFARE  
SCHEME. (Treatment of Squint) —

Bellshill, - - -	Co-operative Hall,	Consulting room and waiting room,	Sessions arranged as required. Part-time specialist.
Blantyre, - - -	Health Institute,	Fully equipped premises,	Do.
Cambuslang, - - -	Do.	Do.	Do.
Shotts, - - -	Do.	Do.	Do.

SCHOOL CLINICS AND TREATMENT  
CENTRES—

Airdrie,	-	-	-	Airdrie Academy, Chapelside Public School, Gateside Public School,	—	Visual and Minor Ailments, Dental.
Cambuslang,	-	-	-		—	Visual, Dental and Minor Ail- ments.
Hamilton,	-	-	-	Beckford Lodge,	—	Visual, Dental and Nose and Throat.
Larkhall,	-	-	-	Beckford Street Clinic, Machanhill Public School,	—	Minor Ailments.
Motherwell,	-	-	-	Merry Street Public School.	—	Visual, Dental and Minor Ail- ments.
				Dalziel Public School, Carnegie Child Welfare Clinic	—	Dental.
				Knowetop Special School,	—	Minor Ailments and *Nose and Throat.
Rutherglen,	-	-	-	Gallowflat Public School,	—	Visual, Dental and Minor Ail- ments.
Coatbridge,	-	-	-	Drumpark Special School, Langloan Public School, Health Institute,	—	Do.
Blantyre,	-	-	-	Calder Street Public School	—	Do.
				Lanark Grammar School, Strathaven Academy, Muiredge Public School, Stane Public School	—	Visual and Dental.
Lanark,	-	-	-		—	Minor Ailments.
Strathaven,	-	-	-	Benhar Public School, Wishaw Academy, Allanton Public School,	—	Visual and Dental.
Uddingston,	-	-	-		—	Do.
Shotts,	-	-	-		—	Do.
					—	Do.
Cambusnethan Area,	-	-	-		—	Do.
					—	Visual.

Name.	Situation.	Nature of Accommodation.	Remarks.
<b>SCHOOL CLINIC AND TREATMENT</b>			
<b>GENERAL (continued)—</b>			
Baillieston, - - -	Baillieston Public School,	—	Visual and Dental.
Bellshill, - - -	Bellshill Academy,	—	Do.
Cadder, - - -	Bishopbriggs H.G. School,	—	Do.
Carluke, - - -	Chryston H. G. School,	—	Do.
East Kilbride, - - -	Carluke Public School,	—	Do.
	East Kilbride Public School	—	Visual.
Lesmahagow, - - -	Lesmahagow H. G. School,	—	Do.
Abington, - - -	Abington Public School,	—	Do.
Biggar, - - -	Biggar High School,	—	Do.
Carnwath, - - -	Carnwath Public School,	—	Do.
	Forth Public School,	—	Do.
	Tarbrax Public School,	—	Do.
<b>TUBERCULOSIS SCHEME. (Dispensaries)—</b>			
Bellshill, - - -	Masonic Hall,	Consulting room and waiting room,	Two sessions per week.
Blantyre, - - -	Health Institute,	Fully equipped premises,	One session per week.
Cambuslang, - - -	Do.	Do.	Two sessions per week.
Larkhall, - - -	Sons of Temperance Hall,	Consulting room and waiting room,	One session per week.
Shotts, - - -	Health Institute,	Fully equipped premises,	Do.

**TUBERCULOSIS SCHEME. (Dental, and Ear, Nose and Throat Clinics)—**

As in Maternity and Child Welfare Scheme.

VENEREAL DISEASES. (Lanarkshire Joint V. D. Committee)—

Coatbridge, - - -	- - -	Coathill J. D. Hospital,	Male and female waiting rooms, Consulting room and treatment room,	Two sessions per week.
Hamilton, - - -	- - -	Oak Lodge, Hamilton,	Do.	Do.
Motherwell, - - -	- - -	County Infectious Diseases Hospitals,	Do.	Do
Wishaw, - - -	- - -	Tuberculosis Hospital,	Do.	Do
Shotts, - - -	- - -	County Sanatorium,	Irrigation Station only,	—

\* Conducted by the Joint Burgh of Motherwell and Wishaw.

NOTE.—Dental treatment in rural schools not easy of access to the above-named Clinics is undertaken at the individual schools by means of travelling dental outfits. All dental and minor ailments treatment conducted by full-time members of the School Medical Service. Visual and Nose and Throat Clinics are conducted by part-time specialists.

# AMBULANCE FACILITIES AVAILABLE IN LANARKSHIRE.

Number.	Situated at.	Owned by.	District Served.
I.—FOR INFECTIOUS CASES.			
3	County Hospital, Motherwell, -	County Council,	Most of the former Middle Ward District and part of the Lower Ward.
2	Lightburn Joint Hospital, Shettleston,	Lightburn Joint Hospital Committee,	Most of the former Lower Ward District and part of the Middle Ward.
2	Roadmeetings Hospital, near Carlisle,	County Council,	The former Upper Ward District.

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## II.—FOR MATERNITY CASES.

2	County Maternity Hospital, Bellshill,	County Council,	The whole County.
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## III.—FOR OTHER CASES.

1	Hamilton,	- - -	Local Voluntary Association,	Larkhall, Stonehouse, Quarter, Cadzow and Udston.
1	Motherwell,	- - -	Do.,	Motherwell and Wishaw Burgh.
1	Strathaven,	- - -	Do.,	Strathaven.

1	Blantyre, -	-	-	-	District Council,	Blantyre.
1	Halfway, Cambuslang,	-	-	-	Local Voluntary Association,	Cambuslang.
2	One at Mossend and one at Coatbridge,				Do.,	Bellshill.
1	Uddingston,	-	-	-	Do.,	Uddingston.
2	Craigneuk,	-	-	-	Do.,	Cleland and Newmains.
2	(1) Dykehead,	-	-	-	Do.,	Shotts.
	(1) Harthill,	-	-	-		
2	Airdrie,	-	-	-	Do.,	New Monkland.
1	Coatbridge,	-	-	-	Do.,	Old Monkland.
1	Baillieston,	-	-	-	Do.,	Baillieston and Mount Vernon.
1	Lanark,	-	-	-	Do.,	Lanark.
1	Douglas,	-	-	-	Do.,	Douglas.
1	Leadhills,	-	-	-	Do.,	Leadhills.
—	Glasgow,	-	-	-	St. Andrew's Ambulance Association (Headquarters)	East Kilbride, Busby and Thornton- hall; Lower Ward District.

## INFECTIOUS DISEASES HOSPITALS.

There are 340 nominal beds available for the treatment of infectious diseases, and the three institutions:—Motherwell, Lightburn, and Roadmeetings are used for patients residing in any part of the new combination of districts. The accommodation for infectious cases has been increased slightly by taking in the Pavilion at Lightburn that was formerly reserved for cases of tuberculosis. Cases are admitted to Lightburn, Motherwell, and Roadmeetings from recognised areas, but these have already been varied from time to time to meet the requirements of the moment.

The concentration of certain infectious diseases in one hospital has been practised in the case of puerperal fever, puerperal pyrexia, and ophthalmia neonatorum, and an extension of the policy to include epidemic diseases of the nervous system is under consideration.

The 340 beds may be considered sufficient for ordinary purposes, but any considerable epidemic causes the accommodation to be fully taxed. The addition of pneumonia to the list of notifiable diseases, and the increasing proportion of cases removed to hospital, have accentuated the difficulties experienced during epidemic periods.

No systematic provision has been made for dealing with outbreaks of measles and whooping-cough, and if beds were available, arrangements might be made for the treatment of children suffering from acute rheumatism. Plans have been prepared for extensions at Motherwell and Lightburn Hospitals to the extent of 154 beds.

## SANATORIA, &c.

*Pulmonary Cases.*—The accommodation for the treatment of cases of pulmonary tuberculosis in its active and sub-active forms is provided at Shotts, Longriggend, and Roadmeetings. At Roadmeetings there is no provision for segregation of cases. There is always a waiting list for these institutions, and even urgent cases have to wait four to six weeks for a bed. This state of affairs can be remedied:—

- (1) by removing all the non-pulmonary cases presently in these sanatoria to an extended institution at Stonehouse; and
- (2) by admitting to Hairmyres sub-active cases of pulmonary tuberculosis who may require modified rest, but are capable of undergoing modified training,



The alternative to this scheme of reclassification and rearrangement of beds is the concentration of all cases at Hairmyres, and the utilisation of that institution as a combined hospital, sanatorium, and colony. To give effect to this proposal 80-100 additional beds and considerable extensions for the medical, nursing, and domestic staffs would be necessary.

The retention of the small institutions has a good deal to be said in its favour provided they do not attempt to undertake treatment which is beyond their capacity, and that arrangements are made to give such treatment elsewhere. Better than a large institution, perhaps, they can attend to the individual needs of that considerable proportion of patients for whom the only treatment possible is the sanatorium regime and the amelioration of symptoms. If one institution fails to retain the patient—and that is the first consideration—alternative accommodation can be offered. If a patient is discharged for disciplinary reasons, he can be admitted—frequently with success—to another institution. If a particular sanatorium is repugnant to a patient because of some family association, he will often consent to treatment in a place of his own nomination. Visitation by friends is important and this is more readily accomplished by having small institutions situated in different areas of the County than by centralisation.

On the whole I favour the retention of the small sanatoria with a reclassification of the accommodation, and, if necessary, alterations and extensions at Hairmyres.

*Non-Pulmonary Disease.*—It is fully recognised that the conditions at Stonehouse are most unsatisfactory and quite inadequate for the needs of the County. All that need be repeated on this occasion is that proposals have been made to extend the institution by 120 beds. The grounds on which these proposals were made are briefly as follows:—

- (1) The transfer of patients from Dalserf Hospital.
- (2) The transfer of non-pulmonary cases presently in Shotts, Longriggend, and Roadmeetings.
- (3) the restoration of a reasonable floor and head space per bed or cot.
- (4) The admission of cases who are receiving inadequate treatment at the out-patient Department.

- (5) The provision of facilities for dealing with non-tuberculous orthopaedic cases, especially for those attending schools for physically defective children.
- (6) The inauguration of a co-operative scheme for the treatment of suitable cases from the Lanarkshire Burghs.

### MATERNITY HOSPITAL.

The County Council recognise that the 33 beds provided at Bellshill are not sufficient to meet the demands of the district, and they propose to erect a new institution of 100 beds. For various reasons no progress had been made with the scheme, but the Committee concerned are seeking a suitable site. In the meantime the need for immediate action has led to proposals for the erection of a new temporary pavilion at Bellshill. It is still the intention of the Council to proceed with a hospital which would fit into a fully developed scheme of maternity service, and in this event there are several possible alternate uses to which Bellshill might be put.

### CHILDREN'S HOSPITAL.

From time to time the County Authorities have considered the desirability of providing a Hospital for Sick Children, and in 1919 a tentative agreement was reached with the Lanarkshire Burghs to act jointly in the matter. The provisional proposal was to establish an institution of 120 beds (60 per cent. medical and 40 per cent. surgical), and also to provide a convalescent home with 80 beds. The second part of the scheme might be set aside pending a decision as to the future of Bellshill Hospital, but the principal part relating to a Sick Children's Hospital for Lanarkshire should be revived by the County Council. It is not necessary to make out a case for increased accommodation for this purpose, as the facts are sufficiently well-known and are admitted. The question to be considered is the location of the new accommodation. Personally, I think it should be in Lanarkshire. Motor transport and increased travelling facilities have done much to overcome distance and to facilitate concentration in large centres, but travelling is still an expensive item for a working-class family. We hear of much hardship experienced by mothers who have to visit hospitals frequently because their children are ill, and we know of those who have been unable to attend for consultation or re-attend for treatment. Moreover, there

is no case for centralisation if the unit to be established is of sufficient size to justify the standing charges and to attract and retain the services of a well-qualified medical and nursing-staff. The institution proposed for Lanarkshire is of such a size, and if erected in conjunction with the Maternity Hospital and any wards that might be necessary for acute cases in a scheme for the provision of a Local Authority General Hospital, would form part of combined unit almost ideal in size and function.

### CONVALESCENT HOMES.

The institutions at Calderbank and at Lanark have been fully occupied by mothers and children, and are a necessary part of a complete Maternity and Child Welfare Scheme. The function of the two homes has been differentiated and cases are selected on medical grounds and not according to the choice of the patient. Calderbank House takes in ante-natal cases because of its proximity to the Maternity Hospital. Abnormal cases are included and transfers on the fourth day of the puerperium accepted because the accommodation for maternity purposes at Bellshill is overtaxed. Debilitated nursing mothers whose babies are under 3 months, and under-nourished and marasmic infants under 1 year, are also dealt with at Calderbank. Children over 1 year and nursing mothers with babies over 3 months are admitted to Lanark.

It will be seen that the principle of using this type of accommodation as an auxiliary to the "acute" hospital has already been observed. Should any of the small institutions in the County be vacated in the reorganisation of hospital facilities, a ready use will be found for them to perform a similar function, either for the institutions of the Local Authority or for Lanarkshire patients undergoing treatment in the large voluntary hospitals.

### POOR LAW HOSPITAL ACCOMMODATION.

No alteration has yet been made in the procedure regulating the admission of patients to hospital, and the sick poor are being dealt with in various Poor Law institutions according to the arrangements that obtained prior to the operation of the Local Government Act.

At Omoa House a block formerly occupied by poorhouse inmates was redecorated and furnished for the reception of cases of post-encephalitis. This arrangement provided 29 beds, and was provisionally approved by the Department of Health to meet the situation that arose when Stobhill Hospital ceased to take in patients from outwith the City of Glasgow. The hospital arrangements in most of the poorhouses are not satisfactory.

I have advised the County Council that the accommodation for the treatment of the sick poor should be concentrated in one institution devoted solely to the institutional treatment of such persons, and, as provided for in the approved scheme of administrative arrangements, controlled by the Public Health Committee.

I have proposed that Omoa House should be appropriated for this purpose, and, after alteration, used for the sick poor and other suitable cases that may fall to be dealt with by the County Council in virtue of their powers under Section 27 of the Local Government Act. The extent of the provision that will have to be made in the latter connection is unknown, but the basis of the proposal is that Omoa House should act as an infirmary for all chronic and semi-chronic cases, including non-certifiable mental illnesses. If accommodation were available, the County Council would be prepared to take in cases from the Lanarkshire Burghs.

#### MENTAL DISEASES HOSPITALS.

It is provided in the scheme of administration that the functions of the County Council with regard to lunacy and mental deficiency (other than the domiciliary treatment and supervision of lunatics and mental defectives) shall stand referred to the Landward-Burghal Public Health Committee.

It has also been decided, however, that the County Medical Officer is not responsible for the supervision and control of any institutions provided by the County Council in combination with other Local Authorities for the reception and treatment of lunatics and persons mentally defective. As all the accommodation for these purposes is at present so provided, the Public Health Department is not, in the meantime, concerned with hospital accommodation for cases of mental illness. It is, however, concerned with the future development of the mental diseases service, and questions will arise, at a later date,

relating to the provision of out-patient clinics, observation beds in institutions other than mental hospitals, the after-care of patients, and so on. In examining these problems, the appropriate County Committee will no doubt consider whether any of the buildings transferred to the Local Authority under the new Act can be suitably appropriated for lunacy and/or mentally defective patients.

It is probable that in Lanarkshire, as elsewhere, there is need for a survey and re-classification of all cases presently undergoing treatment in the mental hospitals, with a view to grading the accommodation, and, if found necessary, redistributing the patients. It is not clear who is made responsible for this task of co-ordination and the division of responsibility may obscure the need for it. The provision of observation beds is likely to be the first problem presented to the County Public Health Committee, and, as already suggested, this subject is closely bound up with the future of Omoa House.

#### VOLUNTARY HOSPITALS.

It must be almost a unique occurrence to find an area such as the County of Lanark, with a population of 500,000, not provided with a general hospital. Lanarkshire cases are sent mainly to the voluntary hospitals in Glasgow, and, in a less degree, to those in Edinburgh. The Departmental Report on the Hospital Services of Scotland estimated the shortage of beds for general hospital purposes to be about 1,200 for the western area of Scotland, and the hardships which arise out of this shortage are well known in Lanarkshire.

Without entering into competition with the great voluntary hospitals, the Local Authority can play a part in relieving the congestion that exists in these institutions. The period of residence in "acute" wards could be shortened by the provision of convalescent homes, and any of the small County institutions that might be vacated in a scheme of reorganisation would readily lend themselves to this purpose. Many patients are admitted to general hospitals suffering from an acute exacerbation of a chronic illness. When the acute phase has passed, these cases would be suitable for transfer to Omoa House after it has been reconditioned for the purpose.

The Local Authority might contribute to the solution of the problem in a further direction, viz., by providing new beds and facilities for special purposes. The establishment of a fully-equipped central



diagnostic centre would relieve the grossly overcrowded out-patient department in Glasgow. It would be of immense value to the medical practitioners in the County and a great convenience to Lanarkshire patients. In conjunction with such a centre there might be provided a few wards for dealing with the types of case which have to wait so long for admission to the general hospitals. Amongst these are patients requiring operation for hernia, hæmorrhoids, varicose veins, gynæcological ailments, and so on. Many of these people are unable to follow their employment and yet have to wait months before obtaining admission to hospital. The extent to which these beds might be made available for accidents and emergencies, such as severe burns, poisoning, and so on, is also worthy of consideration. If it proved advantageous from an administrative point, there is no reason why these facilities should not be provided as part of a unit embracing the maternity and sick children's accommodation.

### **Medical Care and Nursing of the Sick Poor.**

No alterations have been made in the arrangements for the medical care and nursing of the sick poor since the transfer of functions under the Local Government Act.

The position in regard to institutional treatment has been referred to previously. Certain proposals have been made with a view to reorganising hospital facilities for the sick poor, but they are so closely related to provisions for dealing with general sickness that nothing is likely to materialise until a detailed scheme has been approved.

The medical care of the sick poor in their own homes is at present undertaken by 44 Poor Law Medical Officers and 1 Mental Deficiency Medical Officer, operating in 55 areas. No alteration has been made in the methods of conducting the service, but no permanent appointments are being made in the meantime. Such vacancies as have occurred since May, 1930, have been filled by temporary appointments. Steps have been taken to collect information regarding the nature and extent of the duties of Poor Law doctors. A questionnaire issued in November, 1930, showed that the first requirement was a uniform system of record keeping. Each medical officer has been requested to keep a record of all the work performed by him for Poor Law purposes, and his register of cases will be examined from time to time. It is hoped to obtain a general impression of the whole service

from this information, and also to formulate recommendations for any modifications of the existing arrangements, including the terms and conditions of payment to medical officers. Certain general observations, however, may be made on the subject.

It is clear that the Domiciliary Medical Service must be administered in the closest co-operation with the Public Assistance Committee and the Public Assistance Officer. Entitlement to outdoor medical relief rests on the qualification that a person is unable to provide himself or his dependents with the medical attention necessary to his needs. He may claim that he is unable to do so because of sickness and consequent inability to work, or he may base his application on relative poverty and inability to pay the ordinary fees demanded by the medical profession. In either event he must first apply to the local officer of the Public Assistance Committee, who is responsible for initiating the subsequent procedure. In this connection the official acts on behalf of the County Council, and not for the District Council, to whom no function relating to medical matters can be delegated. The success of the scheme will depend on a free interchange of information between the Medical Officer of Health and the Public Assistance Officer, and I anticipate no difficulty in this respect.

In other directions the service should be conducted as part of a unified County health administration. For example, under the Maternity and Child Welfare Scheme, arrangements will be made for skilled attendance at confinements, and for the care and supervision of nursing and expectant mothers. The divided responsibility for cases of tuberculosis undergoing domiciliary treatment will be co-ordinated, and use will be made of the specialists' services already established under the Tuberculosis and the Maternity and Child Welfare Scheme. I hope it may be possible to inaugurate a single system of supervision of mental defectives in conjunction with the scheme of medical inspection of school children.

The first and most important decision to be made is what form the service will take, and in this connection three different systems may be considered :—

(1) The present method is by means of part-time doctors, who carry out all the Poor Law work that arises in the areas allotted to them. These districts have not been modified, and, generally speaking, are the areas of the former Parish Councils.

(2) The employment of whole-time medical officers has been considered. They might be utilised for treating patients at home in areas where a sufficient concentration of population would justify a whole-time appointment, leaving the less populous districts to be served by part-time doctors. Apart from employing them in general work, however, it is possible that a whole-time officer or officers might be necessary to perform special duties in a scheme otherwise conducted by part-time service. Among the special work to be undertaken by such an official would be the granting of medical certificates. If it were impracticable for him to issue all certificates, he might be required to issue confirmatory certificates in cases where immediate assistance had been given on the emergency certificate of a local practitioner. Only after certification by such an officer would the person become entitled to receive medical relief—other than emergency attention—from a part-time or panel staff.

(3) A system of providing medical relief by establishing a panel of general practitioners has also been considered. It is claimed that the spirit of the new Act would be most appropriately observed by this system, in that any stigma which may be attached to receiving medical attention from a designated parish doctor would be removed, and that it would be in the interests of the profession as a whole to participate in the work. These averments have much to be said in their favour. A panel service has also the advantage of greater elasticity. The closing down of works in small communities throws a burden on the parish medical officer which must be difficult to bear. His salary does not fluctuate with the work demanded of him, and he is consequently unable to employ temporary assistance. It follows that the quality of his work must suffer in such circumstances. There is also no doubt that a great deal of medical work that should rightly fall to the Local Authority is being done by general practitioners for nothing. Although the public practice of parish medical officers has expanded very much in recent years, it still falls short of the theoretical limit. The wives and dependants of many men receiving Unemployment Benefit from the Labour Exchanges are destitute, in so far as they cannot afford to provide themselves with medical attendance. They do not apply for medical relief, however, but receive gratuitous attention from the insured person's panel doctor.

It is a matter of common knowledge that the duties of a public medical officer may conflict with his private interests, and a Poor Law



medical service run on panel lines—without safeguards—would be subject to all the difficulties arising out of this conflict of interests. In a preceding paragraph a partial remedy has been suggested by including in the scheme one or more full-time officers to perform special duties.

In the meantime no opinion is offered on the alternative methods of administering medical relief, because, apart from their intrinsic merits, there is a lack of accurate data on which to estimate the relative costs.

Even if the present method of conducting the service is continued, steps will have to be taken to make the conditions uniform throughout the County. Reference has been made to the introduction of systematic record keeping, and further modifications will be required. The procedure by which a medical officer is requested to attend a sick person varies widely in the different parishes. The range of service is not the same in all districts, and there are different methods of dealing with continuation certificates. There are no arrangements for dealing with cases whose ability to work is in dispute, and there is need for a uniform system of issuing and supervising prescriptions. These and other matters will require the early attention of the Public Health Committee.

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### STAFF.

It is with much regret that I have to record the death of JOHN THOMSON WILSON, M.D., D.P.H., in August, 1930, who was County Medical Officer of Health from the year 1894 until his retiral in 1924. He was endowed with a wide knowledge of Public Health and Local Government Administration, and it is largely through his services that the County Council of Lanark is recognised as one of the pioneer Local Authorities in Public Health Administration.

During the year Dr. James L. Brownlie resigned his appointment as Bacteriologist to take up an appointment with the Department of Health for Scotland and Dr. Alexander Fraser resigned his position to take up an appointment as County Medical Officer of Health, Kirkcudbrightshire.

Under the Local Government (Scotland) Act the staff was recognised throughout the year, but as this report is made up in the same form as previously, viz., as separate district reports, there is no necessity to refer to the reorganisation here.

### STATISTICS.

The *Area* of each of the three Sanitary Districts of the County is as follows:—Middle Ward, 184,683 acres; Upper Ward, 326,803 acres; and Lower Ward, 21,101.

The *Population* as ascertained at the Decennial Censuses, 1891, 1901, 1911, and 1921, as well as the estimated population for the years 1922-1930, are given in the following tabular statement. The population, estimated to the middle of the year, is based upon the number of occupied houses according to the Valuation Roll and the institution population in the annual Police Census:—

#### (Census Population)

Year.		Middle Ward.	Upper Ward.	Lower Ward.	County.
1891,	-	142,548	37,005	30,261	209,814
1901,	-	179,363	40,420	*41,531	261,314
1911,	-	202,663	42,978	56,974	302,615
1921,	-	218,817	46,701	29,933	295,451

\* Does not include the population (5,642) in the area annexed to the Burgh of Govan as from 15th August, 1901.

#### (Estimated Population)

Year.		Middle Ward.	Upper Ward.	Lower Ward.	County.
1922,	-	224,790	46,870	30,220	301,880
1923,	-	232,700	47,700	31,500	311,900
1924,	-	237,000	48,400	32,600	318,000
1925,	-	237,000	48,200	33,000	318,200
1926,	-	237,000	48,200	29,750	314,950
1927,	-	236,000	48,000	30,000	314,000
1928,	-	239,000	48,200	33,300	320,500
1929,	-	239,000	48,500	34,000	321,500
1930,	-	239,000	49,000	37,500	325,500

The reduction in the area and population through extension of Burgh Boundaries since the year 1891 was as follows:—

				Acreage.	Estimated Population.
1896—City of Glasgow,	-	-	-	450	632
Burgh of Wishaw,	-	-	-	465	1,100
1899—City of Glasgow,	-	-	-	370	399
1901—Burgh of Govan,	-	-	-	209	5,642
Do. Hamilton,	-	-	-	67	—
1906— Do. Rutherglen,	-	-	-	469	3,000
1908— Do. Motherwell,	-	-	-	438	3,600
Do. Lanark,	-	-	-	214	260
1912—City of Glasgow,	-	-	-	1,706	28,490
1913—Burgh of Renfrew,	-	-	-	216	18
1914— Do. Coatbridge,	-	-	-	32	4
1920— Do. Motherwell and Wishaw,	-	-	-	296	500
1924— Do. Coatbridge,	-	-	-	202	10
1925— Do. Hamilton,	-	-	-	898	84
1926—City of Glasgow,	-	-	-	3,542	4,350
1927—Burgh of Airdrie,	-	-	-	335	405

*The Natural Increase of the Population—i.e.,* the excess of births over deaths—also shows a considerable decline since the decennial period 1891-1900, the figures for the three decennial periods 1891-1920, for the quinquennial period 1921-1925, and for the years 1926-30, being as follows:—

	Annual Average.									
	1891- 1900	1901- 1910	1911- 1920	1921- 1925	1926	1927	1928	1929	1930	
Natural increase,	4,563	5,844	4,843	4,526	4,049	3,648	3,390	2,743	3,063	
Natural increase per 1,000 of the Popu- lation, ...	...	19.3	20.5	16.7	14.6	12.8	11.6	10.5	8.5	9.4

*Rates.*—For the purposes of comparison, Table A shows birth and mortality rates of each Sanitary District for the last three decennial periods, for the quinquennial period 1921-25, and for the years 1926, 1927, 1928, 1929, and 1930. It will be observed that the rates are highest in the Middle Ward District, where the employment of the population is chiefly in mining and manufacturing industries.

In each district there has been a marked decline in the birth-rate and death-rate since the decennial period of 1901-1910.

TABLE A.—SHOWING BIRTHS AND DEATHS IN EACH COUNTY  
SANITARY DISTRICT; BIRTH-RATES AND DEATH-RATES PER  
1,000 OF THE POPULATION; AND INFANTILE DEATHS AND  
INFANT MORTALITY RATES PER 1,000 BIRTHS.

		Annual Average.								
		1891- 1900	1901- 1910	1911- 1920	1921- 1925	1926	1927	1928	1929	1930
MIDDLE WARD—										
Births, ...	...	6,232	7,412	6,820	6,406	5,928	5,640	5,382	4,994	5,034
Birth-rates, ...	...	39.1	38.9	32.5	27.8	25.0	23.9	22.5	20.9	21.0
Infant Deaths (under one year), ...	...	809	921	754	592	489	493	491	426	431
Infant Deaths per 1,000 Births, ...	...	129.9	124.2	110.4	92.4	82.4	87.4	91.2	85.3	85.6
Deaths, ...	...	2,908	3,118	3,000	2,789	2,618	2,649	2,614	2,729	2,630
Death-rates, ...	...	18.1	16.3	14.3	12.1	11.0	11.2	10.9	11.4	11.0
UPPER WARD—										
Births, ...	...	1,222	1,209	1,143	1,125	999	920	888	845	808
Birth-rates, ...	...	31.6	28.9	25.9	23.6	20.7	19.2	18.5	17.4	16.5
Infant Deaths (under one year), ...	...	116	104	91	81	52	64	61	64	49
Infant Deaths per 1,000 Births, ...	...	95.5	86.5	80.2	71.8	52	69.5	68.7	75.7	60.6
Deaths, ...	...	606	552	561	541	498	522	517	531	486
Death-rates, ...	...	15.6	13.2	12.7	11.3	10.3	10.8	10.8	10.9	9.9
LOWER WARD—										
Births, ...	...	1,200	1,576	869*	651	591*	567	623	595	704
Birth-rates, ...	...	32.9	33.4	24.1*	20.6	19.0*	18.9	18.7	17.5	18.7
Infant Deaths (under one year), ...	...	150	174	88*	51	39*	46	59	40	40
Infant Deaths per 1,000 Births, ...	...	125.2	110.8	98.2*	78.6	65.9*	81.1	94.7	67.2	56.8
Deaths, ...	...	577	683	428*	326	353*	308	372	431	367
Death-rates, ...	...	15.9	14.4	12.2*	10.3	11.3*	10.3	11.1	12.7	9.8

\* By the Glasgow Boundaries Act, 1912, an area of 1,706 acres, with a population of 28,490 was annexed by the City of Glasgow, which affected the statistics from 1st January, 1913, and again by the Glasgow Boundaries Act, 1926, a further annexation of 3,542 acres, with a population of 4,350, took place, which affected the statistics for the year 1926.

Details with regard to the various causes of death and the births and deaths in each parish will be found in the district reports.

The following Table B gives the deaths in each of the three County sanitary areas, classified according to cause, and the death-rates per 1,000 of the population:—

TABLE B 1930.

Cause of Death.	MIDDLE WARD.		UPPER WARD.		LOWER WARD.	
	Deaths.	Death-rate per 1,000 popula- tion.	Deaths.	Death-rate per 1,000 popula- tion.	Deaths.	Death-rate per 1,000 popula- tion.
Typhoid Fever, - - -	2	·00	1	·02	1	·02
Smallpox, - - -	—	—	—	—	—	—
Measles, - - -	51	·21	2	·04	1	·02
Scarlet Fever, - - -	3	·01	1	·02	—	—
Whooping-Cough, - - -	32	·13	3	·06	1	·02
Diphtheria, - - -	21	·08	3	·06	3	·08
Influenza, - - -	61	·25	6	·12	5	·13
Cerebro-spinal Fever, - - -	8	·03	—	—	2	·05
Erysipelas, - - -	4	·01	1	·02	1	·02
Encephalitis Lethargica, - - -	8	·03	—	—	—	—
Dysentery, - - -	1	·00	—	—	—	—
Acute Infective Jaundice, - - -	—	—	—	—	—	—
Pulmonary Tuberculosis, - - -	130	·54	19	·38	23	·61
Meningeal " - - -	30	·12	1	·02	—	—
Abdominal " - - -	11	·04	4	·08	2	·05
Other Tuberculous Diseases, - - -	24	·10	3	·06	2	·05
Septicaemia and Pyaemia, - - -	16	·06	5	·10	—	—
Rheumatic Fever, - - -	11	·04	1	·02	1	·02
Malignant Diseases, - - -	239	1·0	60	1·22	36	·96
Meningitis (simple), - - -	22	·09	1	·02	6	·16
Cerebral Haemorrhage, - - -	195	·81	43	·87	49	1·30
Other Nervous Diseases, - - -	69	·28	13	·26	9	·24
Organic Heart Disease, - - -	292	1·22	57	1·16	50	1·33
Other Circulatory Diseases, - - -	76	·31	22	·44	4	·10
Bronchitis, - - -	139	·58	23	·46	16	·42
Pneumonia (all forms), - - -	262	1·09	34	·69	30	·8
Other Respiratory Diseases, - - -	28	·11	11	·22	1	·02
Diabetes, - - -	36	·15	5	·10	2	·05
Pernicious Anaemia, - - -	13	·05	—	—	3	·08
Diseases of Ductless Glands, - - -	13	·05	1	·02	6	·16
Appendicitis, Typhlitis, - - -	21	·08	6	·12	1	·02
Liver Diseases (not Malignant), - - -	22	·09	2	·04	5	·13
Other Digestive Diseases, - - -	90	·37	9	·18	11	·29
Nephritis, Bright's Disease, - - -	74	·30	17	·34	6	·16
Dis. of Genito-Urinary System, - - -	19	·07	—	—	6	·16
Dis. of Female Genital Organs, - - -	3	·01	1	·02	2	·05
Puerperal Sepsis, - - -	20	·08	—	—	1	·02
Dis. and Acc. of Pregnancy, &c., - - -	19	·07	3	·06	3	·08
Congenital Hydrocephalus, - - -	7	·02	—	—	1	·02
Congenital Heart Diseases, - - -	10	·04	—	—	1	·02
Congenital Malformation, - - -	13	·05	5	·10	1	·02
Infantile Convulsions, - - -	26	·10	1	·02	4	·10
Diarrhoea (under 2 years), - - -	37	·15	2	·04	—	—
Premature Birth, - - -	81	·33	10	·20	8	·21
Injury at Birth, - - -	5	·02	1	·02	1	·02
Atrophy, D. and M., - - -	62	·25	13	·26	6	·16
Atelectasis, - - -	7	·02	1	·02	1	·02
Suffocation—Overlying, - - -	3	·01	—	—	—	—
Rickets, - - -	2	·00	—	—	—	—
Other Diseases of early infancy, - - -	5	·02	2	·04	1	·02
Syphilis, - - -	4	·01	1	·02	—	—
Violence, - - -	110	·46	24	·48	19	·5
Suicide, - - -	14	·05	2	·04	1	·02
Other Defined Diseases, - - -	142	·59	60	1·22	30	·8
Ill-defined Diseases, - - -	37	·15	6	·12	4	·10
	2,630	11·00	486	9·91	367	9·78

The following table gives a comparison of the County birth and mortality rates with those of the Burgh areas for the year 1930. This information has been extracted from the Annual Report of the Registrar-General. It should be noted that the figures for the three County Sanitary Districts are slightly different from the figures published by the Public Health Department, due to the fact that the Registrar-General's estimated population differs from that of the Public Health Department :—

		YEAR 1930.		
Population estimated by Registrar-General.		Birth-rate. Corrected for Transfers.	Death-rate. Corrected for Transfers.	Infantile Mortality Rate. Corrected for Transfers.
COUNTY OF LANARK—				
Middle Ward, -	214,623	23·4	12·2	86
Upper Ward, -	43,971	18·4	11·1	62
Lower Ward, -	34,597	20·3	10·6	55
BURGHs—				
Glasgow, -	1,085,502	21·5	14·2	101
Motherwell and Wishaw, -	65,170	22·6	12·4	86
Coatbridge, -	43,173	26·4	14·2	103
Hamilton, -	38,054	25·5	13·0	88
Airdrie, -	25,923	24·2	12·0	97
Rutherglen, -	25,134	17·1	13·1	84
Lanark, -	6,191	17·0	14·7	48
Biggar, -	1,341	14·9	12·7	—

### PREVALENCE OF INFECTIOUS DISEASES.

Table C gives the cases and deaths due to the various infectious diseases in each Sanitary District during the year :—

TABLE C

	Middle Ward.		Upper Ward.		Lower Ward.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Smallpox, - - -	—	—	—	—	—	—
Diphtheria, - - -	751	21	120	3	124	3
Scarlet Fever, - - -	1,001	3	158	1	191	—
Typhoid „ - - -	115	2	—	1	4	1
Paratyphoid, - - -	—	—	13	—	—	—



TABLE C (continued).

	Middle Ward.		Upper Ward.		Lower Ward.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths
Acute Anterior Poliomyelitis,	—	—	—	—	1	—
Cerebro-spinal Fever, -	16	8	—	—	6	2
Erysipelas, - - -	193	4	37	1	30	1
Puerperal Fever, - -	74	20	6	—	6	1
Puerperal Pyrexia, - -	66	—	5	—	11	—
Infantile Paralysis, - -	5	—	—	—	—	—
Ophthalmia Neonatorum,	79	—	3	—	10	—
Dysentery, - - -	—	1	—	—	—	—
Tetanus, - - -	—	—	1	—	—	—
Primary Pneumonia, -	1,089	262	68	34	102	30
Influenzal „ -	82		4		11	
Pulmonary Tuberculosis, -	342	130	23	19	56	23
Non-Pulmonary „ -	338	65	20	8	25	4
Encephalitis Lethargica, -	11	8	1	—	1	—
Infective Jaundice, - -	11	—	—	—	—	—
*Measles, - - -	—	51	—	2	—	1
*Whooping-Cough, - -	—	32	—	3	—	1
Chickenpox - - -	871	—	114	—	263	—

\* Not being notifiable the number of cases cannot be ascertained.

### HOUSING.

The number of *Occupied* and *Unoccupied Houses* as given in the Valuation Roll for each year since 1923, was as follows:—

Year.	1923	1924	1925	1926	1927	1928	1929	1930
UPPER WARD—								
Occupied,	10,109	10,225	10,218	10,165	10,152	10,193	10,260	10,361
Unoccupied,	110	117	135	164	361	458	351	277
MIDDLE WARD—								
Occupied,	44,020	44,836	44,928	44,988	44,716	45,183	45,078	45,448
Unoccupied,	554	356	362	299	541	711	764	503
LOWER WARD—								
Occupied,	6,092	6,322	6,433	5,958	6,153	6,868	7,111	8,241
Unoccupied,	53	16	42	29	73	71	63	64
COUNTY—								
Occupied,	60,221	61,383	61,579	61,111	61,021	62,244	62,449	64,050
Unoccupied,	717	489	539	492	975	1,240	1,178	844
TOTAL HOUSES,	60,938	61,872	62,118	61,603	61,996	63,484	63,627	64,894

### MILK (SPECIAL DESIGNATIONS) ORDER (SCOTLAND), 1930.

On 31st December, 1930, the number of licence-holders in the County of Lanark was as follows:—

*Producer's Licence—*

Certified milk, ... ..	14
Grade A (T.T.) milk, ... ..	25
Grade A milk, ... ..	5
Pasteurised milk, ... ..	1

*Dealer's Licence—*

Certified milk, ... ..	2
Grade A (T.T.) milk, ... ..	10
Certified milk, Grade A (T.T.) milk, and Pasteurised milk, ... ..	1
Certified milk and Grade A (T.T.) milk, ...	1
Grade A (T.T.) milk and Pasteurised milk, ...	2
Grade A milk Pasteurised, ... ..	1
Pasteurised milk, ... ..	4

The following table gives the results of bacteriological examination of samples of graded milk taken during the year:—

Blood Heat Organisms per c.c.	Certified.	Grade A (T.T.)	Grade A.	Pasteurised.
Under 1,000 ... ..	9	1	—	2
„ 2,500 ... ..	20	15	2	2
„ 5,000 ... ..	13	33	1	1
„ 10,000 ... ..	6	45	6	1
„ 20,000 ... ..	5	38	6	1
„ 30,000 ... ..	5	14	4	2
„ 50,000 ... ..	1	13	3	—
„ 100,000 ... ..	—	12	2	2
„ 200,000 ... ..	—	5	1	—
Over 200,000 ... ..	—	5	1	1
	59	181	26	12

*Coliform Bacilli present—*

in One-tenth of a c.c.,	10	—	—	1
in One-hundredth of a c.c.,	—	8	6	5
in One-thousandth of a c.c.,	—	—	—	1



Out of the 266 samples of Certified, Grade A (T.T.) milk, and Grade A milk taken, 236, or 88 per cent., complied with the bacteriological requirements of the Milk (Special Designations) Order. 30 samples taken did not comply with the bacteriological requirements in the following respects:—

4 exceeded the bacterial count.

23 did not comply in respect of the presence of coliform bacilli.

3 exceeded the bacterial count and coliform bacilli were also present.

The samples which did not conform to the bacteriological requirements of the Order were obtained from 13 producers and 2 dealers. There were, therefore, 31 producers of graded milk in the County whose milk samples were found to be free from bacteriological contamination throughout the year.

The following table gives the results of chemical examination of samples of graded milk taken during the year:—

Milk Fat per cent.	Certified.	Grade A (T.T.)	Grade A.	Pasteurised.	Non-fatty solids per cent.	Certified.	Grade A (T.T.)	Grade A.	Pasteurised.
2.2	1	—	—	—	8.5	—	1	1	—
2.8	1	—	—	—	8.6	1	2	1	—
3.0	—	—	1	—	8.7	3	7	1	1
3.1	1	2	—	—	8.8	4	16	6	2
3.2	—	1	—	—	8.9	11	24	2	—
3.3	1	3	—	—	9.0	6	30	7	2
3.4	1	2	3	1	9.1	9	42	4	1
3.5	3	7	1	—	9.2	4	19	2	1
3.6	2	7	6	1	9.3	3	12	1	—
3.7	1	13	3	1	9.4	4	8	—	—
3.8	3	11	3	1	9.5 & Over	1	3	—	—
3.9	4	17	2	1	—	—	—	—	—
4.0	4	25	1	1	—	—	—	—	—
4.1	7	15	1	1	—	—	—	—	—
4.2	6	17	3	—	—	—	—	—	—
4.3	1	11	—	—	—	—	—	—	—
4.4	2	9	—	—	—	—	—	—	—
4.5 & Over	8	24	1	—	—	—	—	—	—
—	46	164	25	7	—	46	164	25	7

From the foregoing table it will be seen that 17 samples of graded milk did not comply with the milk fat standard of 3.5 per cent. These samples were taken from 11 producers. The matter was taken up with the producers concerned and subsequent sampling showed that the standard was being complied with.

33 producers complied with the standard for milk fat on all occasions throughout the year.

*Supply of Milk to School Children.*—221 samples, which are not included in the above figures, were taken at various schools throughout the County in connection with the supply of milk to school children.

### Cleanliness of Non-Graded Milk.

During the year 361 samples of milk were taken by the Food and Drugs Inspectors and the Sanitary Inspectors for examination bacteriologically. The results of examination showed that 237, or 65 per cent., of these samples complied with the standard laid down for Grade A (T.T.) milk and Grade A milk, and of this number 103 also complied with the standard laid down for Certified milk.

The 124 samples above the standard did not comply with it in the following respects:—

Samples containing over 200,000 blood heat organisms per c.c. and coliform bacilli present in .01 or .001 of a c.c.,    ...    ...    ...    ...    ...    ...    ...	38
Samples containing over 200,000 blood heat organisms per c.c.,    ...    ...    ...    ...    ...    ...    ...	16
Samples with coliform bacilli present in .01 or .001 of a cc.,    ...    ...    ...    ...    ...    ...    ...	70
	<hr/> 124 <hr/>

Where a sample of ordinary milk is found to contain a large number of bacteria per c.c. or coliform bacilli is present in .001 of a c.c., the Sanitary Inspector is instructed to visit the farm concerned at milking time, and report with regard to the cleanliness of the premises and the methods employed. At the same time he suggests any improvements which he may consider will give cleaner milk. This has always had the desired effect, and subsequent samples taken have shown a satisfactory improvement. I would again point out that there is no hardship in asking all dairy farmers to comply with the standard of Grade A milk, so far as the bacteriological

examination is concerned, and the improvement shown by subsequent sampling of vendors, from whom samples of milk badly contaminated had been obtained, shows that the standard of Grade A milk can be attained by all dairy farmers.

The Food and Drugs Inspector has been supplied with a sediment tester, which he utilises when taking a sample of milk to impress the producer with regard to the cleanliness to the naked eye. Should the pad, after filtration, show marked evidence of "visible" or insoluble dirt, it is exhibited and explained to the farmer at once.

The following table shows the results of bacteriological examination of ordinary milk samples taken during the year:—

Blood	Heat	Organisms,		Jan. to	April to	July to	Oct. to	Total
	per c.c.			March.	June.	Sept.	Dec.	
Under	10,000	-	-	17	16	7	3	43
"	30,000	-	-	66	26	13	2	107
"	50,000	-	-	30	13	10	6	59
"	100,000	-	-	30	10	10	5	55
"	200,000	-	-	17	9	11	7	44
"	300,000	-	-	—	1	8	2	11
"	500,000	-	-	3	2	6	—	11
"	1,000,000	-	-	5	4	10	—	19
Over	1,000,000	-	-	2	1	9	—	12
				170	82	84	25	361

Coliform bacilli present—

In one-tenth of a c.c.,	42	18	14	7	81
In one-hundredth of a c.c., - -	14	10	17	3	44
In one-thousandth of a c.c., - -	14	12	33	5	64

### Veterinary Inspection of Dairy Herds.

The inspection of dairy herds throughout the County was carried out, as formerly, by the Veterinary Inspector and his assistant, with the addition of some temporary assistance. Samples of milk were drawn from all udders which, upon examination, showed conditions suspicious of any disease liable to infect or contaminate the milk. In this way 819 samples were taken and examined in the Bacteriological Laboratory, where 76 samples taken from 74 animals were

found to contain tubercle bacilli, and 226 samples taken from 224 animals found to contain other infectious organisms. The animals from which the samples were drawn containing tubercle bacilli were slaughtered under the Tuberculosis Order. In connection with the samples found to contain other infectious organisms, letters were sent to the owners of the animals pointing out that it was an offence to sell milk from such a cow for human consumption, and asking them what they were doing to comply with the Statute. No difficulty was experienced in getting the owners of such animals to discontinue selling the milk from such a cow for human consumption.

During the year 1,754 herds were inspected, and 34,455 cows examined.

# Bacteriological Laboratory.

T. GOW BROWN, M.D., D.P.H.

The following table shows the total number of specimens dealt with since the opening of the Laboratory in 1903, and the sources of supply:—

## RECORD OF WORK DONE SINCE 1903.

Year.	Specimens.	Sources of Supply.					
		Med. Pract.	P.H. Staff.	Hosp. Staff.	Sch. Med. Staff.	Vet. Surgeons.	Slaugh. Staff.
1903	569	...	...	...	...	...	...
1904	791	...	...	...	...	...	...
1905	1,270	...	...	...	...	...	...
1906	2,061	1,651	142	209	...	59	...
1907	5,678	2,739	1,794	1,094	...	40	11
1908	8,311	4,310	1,813	1,911	...	249	28
1909	7,774	3,202	1,148	3,041	...	336	47
1910	6,945	2,951	406	3,200	29	322	37
1911	5,949	2,890	494	2,250	99	191	25
1912	6,715	3,542	753	2,193	91	117	19
1913	6,199	3,006	627	2,190	120	244	12
1914	7,193	2,481	1,314	2,985	96	295	22
1915	6,497	2,370	1,212	2,848	2	52	13
1916	3,730	2,161	535	952	...	79	3
1917	4,725	1,990	480	2,136	...	117	2
1918	6,283	1,941	745	3,514	...	81	2
1919	8,595	2,741	1,219	4,446	23	166	...
1920	9,162	3,075	1,205	4,483	90	302	7
1921	10,409	3,118	1,794	5,139	67	285	6
1922	9,702	3,108	2,475	3,803	41	243	31
1923	10,485	3,294	2,062	4,785	84	241	19
1924	11,030	3,537	2,280	4,936	70	189	18
1925	11,193	3,758	2,495	4,517	56	357	10
1926	17,327	6,472	2,769	7,232	49	796	9
1927	19,331	6,382	3,759	8,097	33	1,053	7
1928	21,059	6,051	3,472	10,525	74	934	3
1929	23,296	7,285	4,079	10,301	55	1,564	12
1930	28,589	9,047	5,388	12,362	22	1,768	2

The following table shows the specimens received from the three sanitary districts of the County and from other areas :—

	Upper Ward.		Middle Ward.		Lower Ward.		County Total.		Other Areas.		Total.	
	+	o	+	o	+	o	+	o	+	o	+	o
<b>SPECIMENS OF HUMAN ORIGIN—</b>												
Tuberculosis, 85	286	998	2,252	96	145	1,179	2,683	211	450	1,390	3,133	
Typhoid Fever, 45	131	243	1,257	3	23	291	1,416	97	326	388	1,742	
Diphtheria, -	524	1,479	1,877	6,381	1,181	2,238	3,582	10,098	605	1,530	4,187	11,628
Cerebro-Spinal Meningitis, -	—	—	6	13	—	—	6	13	—	12	6	25
Venereal Diseases, -	7	48	221	1,262	9	52	237	1,362	252	633	489	1,995
Miscellaneous, 24	22	617	660	24	6	665	688	105	156	770	844	
<b>SPECIMENS FROM ANIMALS—</b>												
Tuberculosis, -	32	305	45	446	1	36	78	787	4	109	82	896
Anthrax, -	12	—	3	—	1	—	16	—	—	—	16	—
Scabies, -	—	4	1	1	—	—	1	5	—	—	1	5
Miscellaneous, 3	1	10	27	—	—	13	28	—	1	13	28	
Milk for bacterial count, -	—	167	—	696	—	24	—	887	—	64	—	951
TOTAL, -	—	3,175	—	17,016	—	3,844	—	24,035	—	4,554	—	28,589

The specimens from other areas were received from the following Local Authorities :—Hamilton, 1,231; Motherwell and Wishaw, 837; Airdrie, 893; Coatbridge, 887; Rutherglen, 315; Kirkintilloch, 39; Lanark, 233; Biggar, 8; Dumbarton, 83; and other Authorities, 28.

### Tubercle.

4,523 specimens were examined for the presence of *B. tuberculosis*, with the following results :—

	Sputa.		Urines.		Others.	
	+	o	+	o	+	o
Medical Practitioners—County, -	100	507	1	13	1	14
„ „ Burghs, -	206	426	—	10	5	14
Hospital Physicians, -	936	1,675	2	11	26	101
Public Health Staff, -	112	360	1	1	—	1
	1,354	2,968	4	35	32	130

The following table is inserted as a matter of interest in connection with the question of the reliability of direct microscopic examination as against animal inoculation in the search for *B. tuberculosis*. It will

be seen that, out of a total of 160 submitted to both methods of examination, 18 were missed by the microscope.

			Sputa.		Urines.		Others.	
			+	o	+	o	+	o
Direct Film Examination,	-	-	—	73	—	13	—	74
Animal Examination,	-	-	2	71	2	11	14	60

Of the 14 positive "others" 11 were specimens of cerebro-spinal fluid and 3 were specimens of pus.

### Typhoid Fever.

2,130 specimens were examined, with the following results:—

		Agglutination Test.		Blood Cultures.		Fæces.		Urines.	
		+	o	+	o	+	o	+	o
Medical Practitioners—									
County,	-	85	156	—	—	1	13	—	—
Burghs,	-	84	207	—	—	13	119	—	—
Hospital Physicians,		123	59	3	39	35	272	19	122
Public Health Staff,	-	24	679	—	—	1	38	—	38
		316	1,101	3	39	50	442	19	160

### Diphtheria.

15,815 specimens were examined from the following sources:—

		Throat.		Nose.	
		+	o	+	o
Medical Practitioners—County,		558	2,266	22	48
Burghs,		586	1,452	19	78
Hospital Physicians, -	-	1,691	3,873	959	972
Public Health Staff, -	-	344	2,923	8	16
		3,179	10,514	1,008	1,114

Of the primary swabs examined in direct smear preparation, 173 gave positive results.

The biological test for virulence of the diphtheria bacillus was applied in 230 cases with 66 positive results.

### Cerebro-Spinal Meningitis.

31 specimens were examined for the presence of the meningococcus. with positive results in 6 cases.



### Venereal Diseases.

*Syphilis*.—1,902 specimens were submitted to the Wassermann test for syphilis, and gave the following results:—

				Blood.	
				+	o
Medical Practitioners—County,	-	-		61	209
"                  "                  Burghs,	-	-		180	530
Hospital Physicians, -	-	-	-	127	769
Public Health Staff, -	-	-	-	5	21
				<hr/> 373	<hr/> 1,529
				<hr/> <hr/>	<hr/> <hr/>

*Treponema Pallidum*.—6 specimens were examined with negative results.

*Gonorrhœa*.—318 specimens were examined, with the following results:—

				Smears.	
				+	o
Medical Practitioners—County,	-	-		29	103
"                  "                  Burghs,	-	-		71	92
Hospital Physicians, -	-	-	-	7	8
Public Health Staff, -	-	-	-	—	8
				<hr/> 107	<hr/> 211
				<hr/> <hr/>	<hr/> <hr/>

*Ophthalmia Neonatorum*.—258 specimens were examined for the presence of gonococci, and 9 of these gave positive results. Of the 249 specimens giving negative results, 48 showed staphylococci, 3 streptococci, 44 B. Xerosis, 19 Koch-Weeks bacillus, 33 Fraenkel's pneumococcus, 3 Morax-Axenfeld's bacillus, and 99 no organisms.

### Miscellaneous Specimens.

*Vaccines*.—102 were prepared, 97 for medical practitioners, and 5 for hospital physicians. These were for the treatment of boils, acne, bronchitis, asthma, cystitis, &c.

*Vincent's Angina*.—12 specimens were examined, with positive results in 10.

*Puerperal Fever*.—132 blood cultures were examined. Streptococci were recovered in 10 cases.

*Urine for Albumin*.—342 specimens gave 197 positive results.

*Others.*—The other miscellaneous specimens included pus and urine for pathogenic bacteria; fæces for dysentery, intestinal worms, and ova; blood films for malaria and other blood diseases; hairs for ringworm; foodstuffs for the food-poisoning group of organisms; and potable and bath waters.

### Specimens from Animals.

*Milk for Tubercle.*—971 samples of milk were received from various Veterinary Inspectors and the Public Health Staff, of which 49 were found positive by microscopic examination, and 31 by biological examination, making a total of 80 positive samples.

*Oral Mucus.*—4 specimens were examined, and acid-alcohol-fast bacilli were found in 1.

				Milk.		Oral Mucus.		Others.	
				+	o	+	o	+	o
				Biolo- Smear. gical.					
Upper Ward,	-	-	-	22	10	305	—	—	—
Middle „	-	-	-	26	17	441	1	3	1 2
Lower „	-	-	-	1	—	36	—	—	—
Other Areas,	-	-	-	—	4	109	—	—	—
				49	31	891	1	3	1 2

All the above 971 samples of milk were also examined for other deleterious organisms (streptococci, &c.), with positive results in 293.

726 of the specimens found negative on microscopic examination were submitted to animal inoculation, and 31 gave positive results.

*Anthrax.*—16 specimens were submitted by the County Veterinary Inspector, and all were positive.

*Scabies.*—6 specimens were examined, with 1 positive result.

*Others.*—41 specimens were examined, with positive results in 13 cases—deleterious organisms, 9; contagious abortion, 4.

*Bacterial Content of Milk.*—The results of the examination of 951 samples are classified as under :—

	Certified Milk.	Grade "A" (TT) Milk.	Grade "A" (TT) Pasteurised Milk.	Grade "A" Milk.	Pasteurised Milk.	Ordinary Milk.
Under 5,000 bacteria per c.c.	53	63	62	3	12	19
„ 10,000 „ „	9	62	8	8	2	33
„ 20,000 „ „	7	67	15	8	2	77
„ 30,000 „ „	4	22	5	5	2	35
„ 100,000 „ „	2	58	10	8	4	121
„ 200,000 „ „	—	12	6	1	—	53
Over 200,000 „ „	—	23	4	1	1	64
Totals,	75	307	110	34	23	402
Coliform bacillus present,	20	76	76	11	9	213

Included in the above totals are 12 Certified, 12 Grade "A" (TT), 2 Grade "A," 9 Pasteurised, and 29 ordinary samples of milk from areas other than the County. They are classified as under :—

	Certified Milk.	Grade "A" (TT) Milk.	Grade "A" Milk.	Pasteurised Milk.	Ordinary Milk.
Under 5,000 bacteria per c.c.,	10	2	—	6	2
„ 10,000 „ „	1	2	1	1	1
„ 20,000 „ „	—	4	1	—	2
„ 30,000 „ „	—	1	—	—	1
„ 100,000 „ „	1	1	—	2	6
„ 200,000 „ „	—	1	—	—	6
Over 200,000 „ „	—	1	—	—	11
Coliform bacillus present,	4	4	—	2	24

### Destruction of Rats.

1,495 bottles of rat virus were supplied, free of charge on application, to farmers, householders, shopkeepers, &c

## Chemical Laboratory.

WALTER BROWN, F.C.S.

The number of samples analysed or examined during the year amounted to 5,146.

The following table shows for each year since 1920 the number of samples analysed :—

SAMPLES EXAMINED IN THE CHEMICAL LABORATORY CLASSIFIED ACCORDING  
TO ADMINISTRATIVE AUTHORITY UNDER WHICH THEY WERE OBTAINED.

Year.	Rivers Pollution.			Public Health Department.		Food and Drugs.	Total.
	Sewage Works.	Trade Effluents.	Streams.	Water Supplies.	Special.		
1920	26	123	142	26	28	217	562
1921	20	54	62	20	97	201	454
1922	50	38	66	32	60	318	564
1923	52	48	84	17	117	155	473
1924	12	101	489	30	100	503	1,235
1925	14	413	757	83	116	829	2,212
1926	61	331	696	30	217	978	2,313
1927	96	659	1,083	47	301	1,586	3,772
1928	115	696	1,195	45	933	1,691	4,675
1929	53	713	1,004	46	4,592	1,337	7,745
1930	44	663	1,026	36	1,564	1,813	5,146

### Samples of Sewage.

SEWAGE WORKS.—44 samples from the following sewage purification works or sewage outfalls :—Westthorn, 16 ; Annathill, 2 ; Salsburgh, 3 ; Ashgillhead, 4 ; East Kilbride, 2 ; Motherwell, 3 ; Overtown, 3 ; Rutherglen Sewer Outfall, 2 ; Gartcosh, Drumcavil, Springwells, Furnace Row, Biggar, Merryton, Lesmahagow, Bonkle, and Torland, 1 sample each.

### Samples of Trade Effluents.

663 samples were examined from the following sources :—

Effluents.	Samples.
Coal Washers, ... ..	465
Pit Waters, ... ..	111
Ammonia Works, ... ..	39
Paper Works, ... ..	20
Oil Works, ... ..	5
Tube Works, ... ..	5
Nail Works, ... ..	4
Creameries, ... ..	3
Print Works, ... ..	2
Lead Mines, ... ..	2
Steel Works, ... ..	2
Iron Works, ... ..	1
Fireclay Mines, ... ..	2
Bleach Works, ... ..	1
Distilleries, ... ..	1

### Streams.

1,026 samples of water were examined, of which 181 were examined for evidence of sewage pollution, and 845 specially for trade waste impurities :—

*Streams affected by Sewage.*—River Clyde routine sampling, 90 ; also at Carbarns, 2 ; Netherton, 2 ; Lanark, 2 ; and Rutherglen Sewer Outfall, 2 ; South Calder, 18 ; Springboig Ditch ; 10 ; Douglas Water, 6 ; Kittoch Water, 6 ; Shotts Burn, 8 ; Stewart Gill, 4 ; Nethan, 4 ; Auchter Water, 5 ; Biggar Burn, 3 ; Tillan Burn, 4 ; Avon, 2 ; Jock's Burn, 2 ; Boghead Burn, 2 ; Newton Burn, 2 ; Gilgovan Burn, 2 ; Drain at New Stevenston, Lees Burn, Dalziel Burn, Rumbling Syke and Ditch at Hawbank, 1 sample each.

*Streams affected by Trade Effluents.*—The following table gives the number of samples, the source of pollution affecting same, and the number of samples of effluent examined :—

Streams.	No. of Samples.	Affected by	No. of Samples.
River Clyde, - - - - -	—	Blantyre Ferme Colliery, - - -	14
" " - - - - -	30 {	Broomside Colliery, - - -	36
" " - - - - -		Broomside Colliery Pit Water, - -	18
" " - - - - -		Overtown Colliery Pit Water, - -	1
" " - - - - -	—	North Motherwell Colliery, - -	17
" " - - - - -	—	Carmyle Bleach Works, - - -	1

Streams.	No. of Samples.	Affected by	No. of Samples.
River Clyde, - - - -	1	Kenmuirhill Colliery, - - - -	—
" " - - - -	8	Clyde Iron Works, - - - -	27
and Battles Burn, - - - -	10	Tolleross Tube Works, - - - -	5
River Clyde, - - - -	—	Clyde Paper Mills, - - - -	1
" " - - - -	—	Cambuslang Gas Works, - - - -	1
" " - - - -	—	Clydebridge Steel Works, - - - -	2
" " - - - -	—	Priory Colliery, - - - -	9
River Clyde, - - - -	—	Ferniegair Colliery, - - - -	—
and Ferniegair Ditch, - - - -	2	Ferniegair Colliery Pit Water, - - - -	1
River Clyde, - - - -	—	Bogleshole Colliery, - - - -	—
and Bogleshole Ditch, - - - -	9		
Mouse Headstream, - - - -	29	Wilsons town Colliery, - - - -	33
		" " Pit Water, - - - -	8
Almond Headstream, - - - -	25	Hassockrigg Colliery, - - - -	15
		" " Pit Water, - - - -	10
" " - - - -	10	Muiracre Colliery, - - - -	7
Almond Headstream, - - - -	14	Baton Colliery, - - - -	9
and Curry Burn, - - - -	7		
North Calder, - - - -	2	Glengowan Print Works, - - - -	2
" " - - - -	6	Caldererux Paper Mills, - - - -	9
" " - - - -	7	Moffat Paper Mills, - - - -	10
North Calder, - - - -	9	Stepends Colliery, - - - -	6
and Stepends Ditch, - - - -	2		
North Calder, - - - -	4	Gartness Colliery, - - - -	3
and Gartness Ditch, - - - -	9		
North Calder, - - - -	—	Carnbroe Mine, - - - -	1
" " - - - -	—	Brownieside Colliery, - - - -	6
" " - - - -	9	Rosehall Colliery, - - - -	6
South Calder, - - - -	8	Shotts Iron Works Washer, - - - -	1
" " - - - -	20	Shotts Iron Works, - - - -	1
" " - - - -	8	Shotts Gas Works, - - - -	2
" " - - - -	2	Carfin Colliery, - - - -	—
" " - - - -	20	Glencleland Colliery, - - - -	8
		" " Pit Water, - - - -	6
South Calder, - - - -	9	Westwood Colliery, - - - -	14
and Hill Glen Burn, - - - -	28	" " Pit Water, - - - -	7
South Calder, - - - -	2	Kingshill Colliery, - - - -	39
and Kingshill Ditch, - - - -	53		
Auchter Water, - - - -	8	Royal George Colliery, - - - -	9
" " - - - -	—	Morningside Fireclay Works, - - - -	2
" " - - - -	3	Coltness Iron Works, - - - -	—
Barbauchlaw Burn, - - - -	43	Dewshill Colliery, - - - -	22
" " - - - -	4	Westrigg Colliery, - - - -	3
Blind Burn, - - - -	2	Stane Colliery, - - - -	11
		" " Pit Water, - - - -	4
Bothlin Burn, - - - -	1	Mossrigg Pit Water, - - - -	1
" " - - - -	15	Auchengeich Colliery, - - - -	9
" " - - - -	1	Gartcosh Iron Works, - - - -	1
Brown Burn, - - - -	2	Monkland Colliery, - - - -	—

Streams.	No. of Samples.	Affected by	No. of Samples.
Butter Burn, - - - -	5	Cadzow Colliery, - - - -	6
and Meikle Burn, - - - -	5		
Car Syke, - - - -	2	Clydesdale Iron Works, - - - -	—
Coal Burn, - - - -	19	Dalquhandy Colliery, - - - -	9
„ „ - - - -	4	Comac Oil Works, - - - -	5
Dalserf Burn, - - - -	—	Broomfield Colliery, - - - -	6
and Broomfield Ditch, - - - -	3		
Dalziel Burn, - - - -	2	Excelsior Iron Works, - - - -	2
Divoty Burn, - - - -	3	Quarter Colliery, - - - -	2
and Quarter Burn, - - - -	1		
Garrion Burn, - - - -	—	Overtown Colliery Pit Water, - - - -	1
Garrion Burn, - - - -	17	Shawfield Colliery, - - - -	16
and Brownlie Ditch, - - - -	15		
Garrion Burn, - - - -	14	{ Castlehill Colliery, - - - -	5
Gateside Burn, - - - -	5	{ „ „ Pit Water, - - - -	2
Glengonnar Water, - - - -	1	Gateside Colliery, - - - -	3
Gowkthrapple Burn, - - - -	12	Leadhills Mines, - - - -	1
Glenboig Burn, - - - -	1	Pather Iron Works, - - - -	1
Howe Burn, - - - -	15	{ Gartverrie Quarriy, - - - -	—
Douglas Water, - - - -	12	{ Barblues Colliery, - - - -	9
and Kennel Burn, - - - -	21	{ „ „ Pit Water, - - - -	5
Light Burn, - - - -	2	{ Douglas West Colliery, - - - -	4
„ „ - - - -	4	{ „ „ Pit Water, - - - -	9
Lingore Burn, - - - -	21	{ Clyde Nail Works, - - - -	4
Mill Burn, - - - -	15	{ Dechmont Colliery, - - - -	5
and Cornsilloch Ditch, - - - -	20	{ Knowton Colliery, - - - -	16
Mollia Burn, - - - -	9	{ „ „ Pit Water, - - - -	12
Muir Burn, - - - -	6	{ Cornsilloch Colliery, - - - -	4
„ „ - - - -	—	{ „ „ Pit Water, - - - -	3
Molendinar, - - - -	2	Bedlay Colliery, - - - -	1
Myers Burn, - - - -	5	Auchlochan Colliery, - - - -	11
Newton Burn, - - - -	5	Auchlochan No. 9 Colliery, - - - -	8
River Nethan, - - - -	2		
Park Burn, - - - -	3	„ „ Pit Water, - - - -	10
„ „ - - - -	3	Cardowan Colliery, - - - -	3
Park Burn, - - - -	6	Uddingston Gas Works, - - - -	—
and Blantyre Ditch, - - - -	5	Dechmont Colliery, - - - -	—
Pow Burn, - - - -	14	Lesmahagow Creamery, - - - -	3
„ „ - - - -	2	Greenfield Colliery, - - - -	1
„ „ - - - -	2	Auchinraith Colliery Pit Water, - - - -	2
Ravel Burn, - - - -	3	Blantyre Colliery, - - - -	8
„ „ - - - -	4		
Rumbling Syke, - - - -	2	Viewpark Colliery, - - - -	20
Shirrel Burn, - - - -	13	{ „ „ Pit Water, - - - -	1
and Holytown Ditch, - - - -	10	Bothwell Park Colliery, - - - -	2
		Uddingston Gas Works, - - - -	—
		Bredisholm Colliery, - - - -	—
		Tannoehside Colliery, - - - -	2
		Shield's Colliery, - - - -	—
		Holytown Colliery, - - - -	5



Streams.	No. of Samples.	Affected by	No. of Samples.
Shotts Burn, - - - -	55	{ Hirst Colliery, - - - -	32
		{ „ „ Pit Water, - - - -	4
Spittal Burn, - - - -	3	Loanend Colliery, - - - -	—
Spittal Burn, - - - -	3	Bardykes Colliery, - - - -	5
and Rotten Calder, - - - -	2		
Seion Burn, - - - -	2	Richmond Park Laundry, - - - -	—
Swinstie Burn, - - - -	1	Spindledyke Colliery Pit Water, - - - -	1
Whinney Burn, - - - -	4	Excelsior Iron Works, - - - -	2
Tillan Burn, - - - -	1	Omoa Knackery, - - - -	—
Dykehead Ditch, - - - -	3	Dykehead Colliery, - - - -	1
Bog Inundation, - - - -	1	Bog, - - - -	—
Hattonrig Ditch, - - - -	4	Hattonrig Colliery, - - - -	—
Thankerton Ditch, - - - -	10	Thankerton Colliery, - - - -	2
East Parkhead Ditch, - - - -	1	East Parkhead Colliery, - - - -	1
Woodhall Ditch, - - - -	6	Woodhall Colliery, - - - -	7
Ross Inundation, - - - -	—	Ross Colliery, - - - -	1
Todhole Burn, - - - -	1	Lanarkshire Steel Works, - - - -	—
		Gartloch Distillery, - - - -	1

### Water Supplies.

36 samples of domestic water were analysed, 6 being from public water supplies and 30 from private sources.

The *public water supplies* examined were :—Carstairs Village supply, Carstairs Junction supply, Coltness House, Cleland, 2 samples, and the supply to Uddingston and to Burnside.

The *private supplies* examined were :—High Cleughearn, East Kilbride, 3; Meadowflatt, Thankerton, 2; Headsmuir, Carluke, 2; Duncanrigg, East Kilbride, 2; Leadloch, Fauldhouse, 2; Newbigging Station House, 2; Muirhead, Carstairs, 2; Priestgill, Strathaven, 2; Lindsaylands, Biggar, 2; Thinacre, Quarter; Killalees, Kirkmuirhill; Ridge Park, Lanark; Fullwood, Carluke; Westmains, Newbigging; Wauknill, Carnwath; High Townhead, Kirkmuirhill; Arpoehill, East Kilbride; Snabe, Strathaven; Burntbroom, Broomhouse; and High Cross, Carluke, 1 sample each.

### Milk of Hygienic Quality.

251 samples of milk were examined, consisting of the following grades :—

Certified, ... ..	47
Grade A (T. T.), ... ..	164
Grade A, ... ..	29
Pasteurised, ... ..	11

18 of these samples did not contain the required amount of butter fat.

## Food and Drugs.

1,813 samples were examined, consisting of the following :—

	No. Examined.	No. not Genuine.
Sweet Milk, ... ..	1,268	97
Skimmed Milk, ... ..	3	—
Condensed, ... ..	18	—
Cream, ... ..	5	—
Butter, ... ..	43	1
Margarine, ... ..	2	—
Cheese, ... ..	4	—
Mince, ... ..	346	32
Sausage Meat, .. ...	18	—
Pie Meat, ... ..	2	—
Sausages, ... ..	1	—
Dripping, ... ..	1	—
Black Pudding, ... ..	1	—
Ham, ... ..	17	—
Whisky, ... ..	38	—
Wine, ... ..	5	—
Bread, ... ..	4	—
Cream Cookies, ... ..	2	—
Sugar, ... ..	4	—
Lemon Curd, ... ..	1	—
Chocolate, ... ..	1	—
Cherries, ... ..	3	—
Barley, ... ..	2	—
Sauce, ... ..	5	—
Mints, ... ..	1	—
Table Jelly, ... ..	2	—
Apples, ... ..	1	—
Tomato Purée, ... ..	1	—
White Pepper, ... ..	1	—
Seidlitz Powder, ... ..	3	—
Cream of Tartar, ... ..	3	—
Gelatine, ... ..	1	—
Zinc Ointment, ... ..	1	—
Tincture of Iodine, ... ..	2	—
Camphorated Oil, ... ..	1	—
Eucalyptus Oil, ... ..	1	—
Turpentine, ... ..	1	—

### Special Samples.

Total, 1313 samples.

Milk from individual cows, 743 ; samples from Sanitary Inspectors, 304 ; Milk supplied to school children, 111 samples of Grade A (T.T.) and 109 samples of Grade A (T.T.) pasteurised milk ; Bladder Stone, 1 ; and Stomach Contents from Dogs, 2.

Hospital supplies, 43 samples consisting of the following :—

Mince, 5 ; Butter, 10 ; Sausages, 3 ; Rice, 9 ; Ground Rice, 4 ;  
Cream of Tartar, 2 ; Vinegar, 2 ; Coffee, 2 ; Bacon, 3 ; Flour, 3.

# Rivers Pollution Prevention.

SENIOR INSPECTOR, - - - FRANK M'ARTHUR.

The work done during the year by the two Inspectors is summarised in the following table :—

## SOURCES OF POLLUTION.—INSPECTIONS AND POLLUTIONS DETECTED.

Nature.	SOURCES LIABLE TO POLLUTE.				POLLUTIONS DETECTED.	
	Number.	Number Inspected.	Number of Inspections.	*Samples Taken.	Number of Sources.	Number Detected.
Coal-Dross Washers, -	70	68†	532	422	29	83
Lead Washer, - -	1	1	2	1	1	2
Ammonia Works, -	19	13	114	39	5	16
Paper Mills, - -	2	3‡	24	20	3	14
Print, Dye Works, &c.,	4	4	12	3	—	—
Chemical Work, - -	1	—	—	—	—	—
Sewage Works and Outfalls,	—	166	376	47	9	11§
Streams, &c., - -	—	272	2,054	1,200	—	—
TOTAL, - - -	—	527	3,114	1,732	47	126

\* The samples analysed are dealt with in the Report of the work done in the Chemical Laboratory.

† Includes one Washer removed from Register and one under construction.

‡ Includes one Mill, draining to Public Sewer, not on Register.

§ Only one pollution is recorded against Westthorn Sewage Works, but the discharge of crude sewage was continuous throughout the year.

## Trade Pollutions.

The total mining and manufacturing pollutions detected numbered 115. Of these, 83 were from coal-dross washers, 2 from the lead washer at Leadhills, 16 from ammonia works, and 14 from paper mills. All of these sources of pollution, with the exception of 1 paper mill, directly discharge their effluents to streams.

COAL-DROSS WASHERS.—There were 70 coal-dross washers on the register. The washer at Milnwood Colliery has been removed, and new washers at Cardowan (Stepps), Mossrigg (Garteosh), and Springbank (Moffat Mills) came into operation during the year, while one was under construction at Kingshill No. 2 Colliery.

532 inspections were made, 422 samples taken, and 83 pollutions, involving 29 collieries, detected.

Pollutions were detected at the following collieries :—

*Auchengeich.	*Hirstrigg.
Barblues.	Holytown.
Bardykes.	*Kingshill.
Blantyre.	Knowton.
Blantyreferme.	Priory.
Bothwell Castle.	Quarter.
Broomside.	Rosehall.
Brownieside.	Shawfield.
*Cornsillock.	Shotts Iron Works.
*Dalquhandy.	*Stepends.
Dechmont.	Thankerton.
*Dewshill.	*Viewpark.
*Douglas Castle.	*Wilsontown.
*Gartness.	Woodhall.
*Hassockrigg.	

\* Specially reported to the County Clerk.

With regard to the collieries at which serious pollution occurred, and on which reports were forwarded to the County Clerk, the following notes might be made :—

*Auchengeich Colliery, near Chryston.*—Inspection of the Bothlin Burn on 16th July showed, although no pollution was occurring at the time of inspection, evidence of previous gross pollution by coal-dross washings, probably intermittent, as was discovered towards the close of 1929. At an inspection, made two days later, serious pollution was actually detected. At this inspection it was found that the preventive measures were in a most unsatisfactory condition, and that the immediate cause of the serious pollution detected had been the removal of the plugs in the outlet pipes of a settling pond, resulting in the whole of its liquid contents discharging to the stream. As noted, the condition of the stream (and also having regard to the silted condition of the three silt-recovery tanks and settling pond) indicated the occurrence of much more serious pollution than that actually detected on 18th July. Some days later, the circumstances were fully gone into with the colliery manager, and thereafter a formal complaint was made to the owners. The circumstances complained of were admitted, and steps necessary to prevent any further cause for serious complaint taken.

*Cornsillock Colliery, near Larkhall.*—It was found necessary to complain of the unsatisfactory condition of the preventive measures at this colliery, which resulted in pollution of the outfall ditch and the Mill Burn, to both of which cattle have access. On 6th and 13th January slight surface drainage pollution was noted, while on 6th March inspection of the Mill Burn made it clear that previous serious pollution had been occurring, probably due to failure, from time to time, to pump the washings to the settling ponds on the bing. A special inspection was therefore made between 6 and 7 p.m. on 27th March, when serious pollution was found to be occurring, due to washings from the silt-recovery tank discharging to the pulsometer ponds, from which, the pump not being in operation, they overflowed direct to the pit water channel and outfall ditch. Earlier in the afternoon there had been no such overflow. On the following night (28th March) the Mill Burn was again found to be seriously polluted. Formal complaint was made to the owners of the colliery with regard to these pollutions. Again, in the month of May, there was cause to seriously complain, not only of the condition of the Mill Burn as a result of previous pollution, but as regards actual pollution observed on 2nd and 3rd May. On the latter date the Rivers Inspector took the colliery manager to see the condition of the stream where it crosses the Lanark Road, a mile away from the colliery, so that he might realise the extent of the pollution complained of. Cause for complaint was readily admitted. Pollution at that time was believed to be mainly due to a discharge of washings, probably from the washer, by a pit water outfall pipe. Inspections made later in the month showed improvement. It should also be noted that at an inspection made on 23rd May the bank of the largest of the settling areas on the bing had given way. Probably no pollution had occurred as a result of this, however, and a squad of men was immediately put on to repair the break.

*Dalquhandy Colliery, Coalburn.*—Serious pollution observed on 22nd October was caused by a workman having removed a plug in the overflow pipe of one of the surface drainage settling ponds. As the settling ponds required to be cleaned out, and as verbal attention to the matter had failed to have the work carried out, complaint was made to the owners of the colliery through the County Clerk.

*Dewshill Colliery, Salsburgh.*—At an inspection made on 25th April, pollution of the Barbauchlaw Burn was found to be occurring,

due to the effluent from the bing being unsatisfactory. A report, in which the Inspector pointed out that new settling ponds were required, was forwarded to the County Clerk. At inspections made during May and June improvements were found to have been effected, and there was then, and at inspections made during the second half of the year, little or no cause for complaint.

*Douglas Castle Colliery.*—Pollution was detected at this colliery at the end of January, on 7th March, and twice in the month of June, when the Estate Factor complained of pollution. Pollution observed on 28th January was slight and appeared to have been due to an overflow from the frozen settling ponds when washing operations started for the day. On 7th March the actual pollution detected was also slight, but evidence of more serious pollution was observed. On this date it was noted that a culvert which passes underneath the refuse bing had become choked, and that water from the small outfall stream had washed down quantities of washer dirt which was deposited in the stream not far from the Douglas Water. This debris was removed and a retaining wall constructed to prevent washer dirt being again carried into the stream. On 10th June it was found that polluting washings from one of the settling ponds had been syphoned to the outfall stream, which was otherwise almost dry. On 17th June pollution was found to have been caused by the carelessness of a workman failing to remove an obstruction from the channel to the settling ponds, with the result that the washings were being by-passed to the outfall stream. It is the custom to place this obstruction in the channel referred to for the purpose of by-passing clean water from the washer before washing operations commence in the morning, and it was this obstruction which the workman had failed to remove, with the result stated.

*Gartness Colliery, Moffat Mills.*—Special observations were made at this colliery for the purpose of detecting serious pollution which it was obvious, from the condition of the outfall ditch which joins the North Calder Water, was occurring out of the ordinary hours of working. This action was rewarded by the detection of the grossest possible pollution on the morning of Sunday, 13th April, when it was found that the washerman and three other workmen were engaged in sludging out the settling ponds through a large bore pipe situated at the bottom of the ponds. On 15th April the manager and the owner's mining engineer were met at the colliery, when, after



discussion, it was agreed that the washings would in future, as was at one time done, be discharged during cleaning operations or at other times by an old shaft to disused workings, and that the manager would personally superintend the cleaning of the settling ponds. It was also promised that, if possible, surface drainage, which is intermittently throughout the day a source of pollution, would also be disposed of in this manner. These arrangements were duly given effect to and cause for complaint entirely removed.

*Hussockrigg Colliery, near Shotts.*—Serious pollution observed on 26th March was due to the unsatisfactory nature of the effluent from the bing settling pond, and could be observed at Easter Baton Farm, over a mile below the colliery. Remedial measures were adopted. On 27th May the bing pond was found to be defective, most of the washings discharging on to a field and thence to a field drain through which the Almond Headstream was being polluted. It was ascertained, however, on 3rd June, that cause for complaint for the time being had been removed by forming a bank at the base of the bing to prevent any washings reaching the drain and stream.

*Hirstrigg Colliery, Salsburgh.*—Complaints continued to be received from the Airdrie, Coatbridge and District Water Board alleging pollution of the Shotts Burn from this colliery. Thus, it was alleged that on 13th March the burn was polluted and that pollution had been occurring frequently before that date. An inspection was made on 15th March, when the preventive measures were found in good order, although it was admitted that there had been slight pollution on the 13th, due to a leak in the bing pond. Another complaint that the Shotts Burn had been polluted on Sunday, 31st March, was made. This was inquired into on 1st April, and was found to have been due to an escape of washings from an upper ground-surface settling pond, probably through a hole or crevice, and that this had been remedied as soon as observed. On 3rd April the County Medical Officer made an inspection, when a member of the owner's firm and the manager were met. At this meeting it was agreed that part of a field would be taken in and a new settling pond formed, which work would be proceeded with at once. No pollution, beyond traces of clay in the water issuing from field drains, was found at this inspection. The work of forming the new pond referred to was not commenced until the beginning of May. On 8th May a further complaint was received, which was inquired into

on the same day. Inspection showed that a break had taken place in a channel which conveys the washings from an upper to a lower settling pond, at a point where this channel runs alongside the outfall ditch, but that this defect had been repaired. A very considerable quantity of coal silt was found in the ditch. The effluent from the lower pond referred to was unsatisfactory, but was being treated by diverting it over waste ground and through two small settling ponds. The effluent as entering the Shotts Burn was very turbid, but contained only clayey matter in suspension, sufficient, however, to pollute the stream, although pollution did not reach the intake to the complainer's water works. A communication with regard to these complaints was forwarded to the County Clerk. Serious pollution of the Shotts Burn observed on 24th November was due to a defect in one of the settling ponds. Temporary remedial measures were at once adopted to stop the pollution on the matter being reported to the colliery manager, but in view of the special importance of keeping this stream free from pollution, the County Clerk made written complaint to the owners. No further pollution was observed up to the end of the year.

*Kingshill Colliery, near Newmains.*—The occurrence of serious pollution from this colliery referred to in the report for the preceding year, continued and was the subject of verbal complaint and of written complaint by the legal agents for Allanton Estate on behalf of their agricultural tenants. Inspections made showed that these complaints were justified and the colliery owners pressed in communications from the County Clerk to provide and maintain satisfactory preventive measures. With regard to the pollutions observed during the early part of the year, it may be noted that, on 10th January, the settling pond in use was silted up, and that two new concrete settling ponds which had been constructed had not been brought into operation. On 3rd February it was found that washings were being syphoned from the new ponds and discharged through old ground settling ponds from which a large amount of silt was being carried into the outfall ditch. It was also then learned that just before the time of inspection one of the washer tanks had been run off to these old settling ponds, the banks of which had given way, resulting in serious pollution. On 18th February serious pollution occurred as a result of washings from the concrete settling ponds overflowing to the old settling ponds. The same thing was occurring on 28th February, and drainage from one of the concrete ponds which

was being cleaned out was also a source of pollution. On 26th March large deposits of silt were observed in the outfall ditch. On 27th March the whole of the washings were discharging direct to the ditch, and it was noted that the old settling area was being banked up with silt, but the Inspector was informed by the workman employed at this work that the bank had given way several times that morning, when silt was carried into the ditch. During April there was an improvement, but on 5th May pollution was occurring as a result of semi-liquid silt from the silt-recovery tank escaping from the wagons, into which it is filled, to the outfall ditch. As a result of the pressure put on the owners to remove cause for complaint, an additional large settling pond was constructed. It had also been noted from time to time that the effluent from the pithead baths was a source of pollution, and several cesspools, in addition to an existing tank, have been provided through which the effluent is passed before it reaches the outfall ditch.

*Stepends Colliery, Plains.*—In the report for the preceding year the continued steps taken in connection with the proposed institution of legal proceedings against the Ardenrigg Coal Company, Ltd., in respect of pollution of the North Calder Water were referred to, and it may be recalled that, on the consent of the Department of Health being received, due notice was given to the colliery owners of the intention of the County Council to take proceedings, when they asked to be heard against such intention. They were therefore heard by the Public Health Committee on 5th June, when they explained certain further remedial measures (brick-built settling ponds) which they proposed to adopt, and were given a period of fourteen days within which to submit plans and specifications showing the proposals. These were duly submitted, and, on 17th January following, an Assistant Engineer of the Department had an interview with the County Officials for the purpose of discussing the proposals, subsequently visiting the colliery. At the interview the Rivers Inspector suggested that a much more satisfactory method of disposing of the coal-washings effluent, or the bulk of it, would be to form a settling pond of washer dirt, a method of disposal which had not been previously considered. At the visit to the colliery this suggestion was placed before the Manager and fully discussed, and it was agreed that it was feasible, there being a suitable area of ground available for the purpose, and could be given effect to in a very short time. The owners favourably considered the suggestion, and their legal agents wrote

to the County Clerk on 3rd February that the matter was being dealt with on the lines suggested and that negotiations with the farmer for acquiring the additional land required were taking place. This was successfully accomplished, the necessary pipe connections from the silt-recovery tank to the area laid, and the pond itself formed as quickly as possible. The new preventive measures were brought into operation at the beginning of March, and have been in successful operation since. On 7th April the County Medical Officer inspected the new arrangements, and in a subsequent communication to the County Clerk recommended that, as the preventive measures were now satisfactory, and as there was reason to believe that they would be maintained in a satisfactory condition, the question of legal action be dropped, which was done. Apart from these proceedings, it should be noted that serious temporary pollution of the North Calder Water, caused by the engineer having hurriedly discharged the washer tanks for the purpose of effecting repairs to a damaged plate, was detected on 25th March. The washings thus released flowed to one of the old settling ponds, which was silted up, and pollution could and, the Inspector was assured, would have been prevented had the surface foreman had an opportunity of diverting the flow to one of the other ponds.

*Viewpark Colliery, Uddingston.*—This colliery continued to be a source of very serious intermittent pollution of the Pow Burn and was the subject of many special inspections and complaint, the provision and maintenance of satisfactory preventive measures being strongly pressed. To this end the colliery owners constructed a series of brick-built settling ponds on the bing on the south side of the Edinburgh Road, and abandoned the bing settling ponds on the north side of the road. They also ultimately made certain provisions for dealing with effluent or overflow washings from these ponds. The new ponds were not brought into operation until some time in April, but, presumably on account of the expense involved in cleaning, were only used for a few months, pumping to the ponds on the north side of the road being resumed towards the end of the year. Inspections of the Pow Burn made during February and March clearly showed the occurrence of gross intermittent pollution, which, as a result of special inspections, was found to occur about midnight, when the contents of the primary collecting pond were pumped to the bing to the secondary collecting pond there, from which they flowed down the bing direct to the Pow Burn. This was found to be occurring near midnight on

1st and 2nd April. The pollution which occurred in these circumstances was of the grossest description. The circumstances were fully reported to the County Clerk, who again complained to the owners, and, in view of the continued recurrence of cause for complaint of serious pollution, the Rivers Inspector, after very careful consideration, suggested to the management that a permanent solution of the question of preventing pollution was likely to be found in conveying the washings in a pipe either eastwards to quarries at Fallside or westwards to a disused quarry near Uddingston West Station, for disposal. Either of these suggestions, especially the latter, seemed reasonably practicable, but on the ground of initial expense was not considered favourably by the owners. The colliery was again observed to be the source of very serious pollution on 18th July, between 11 p.m. and 12 midnight, when the silt-recovery tank was found being discharged direct to the Pow Burn. A sample of the effluent as discharging to the Pow Burn contained 26,231.2 and of the stream about 20 yards below the outfall 4,449.6 parts per 100,000 of suspended solids. A report on the matter, in which it was also pointed out that certain settling ponds were unsatisfactory, was forwarded to the County Clerk, who made a further formal complaint to the owners. They replied to the effect that the pollution was due to the gross dereliction of duty of a workman who was specially employed to operate the pulsometer which throws the coal-dross washings to the bing. They expressed regret at what had occurred, and explained the disciplinary action they had taken in the matter. They also gave an assurance that every effort would be made to prevent further pollution.

*Wilsontown Colliery.*—Pollution observed on 3rd November was due to heavy rain washing out silt from old settling ponds. On 27th November, previous to inspection at the colliery, the outfall stream was observed to be polluted, but the settling pond effluent was clear when the Inspector arrived at the colliery. While he was there, however, pollution again occurred due to an inrush to the settling pond of a large volume of water, which it was explained by the manager consisted of water from two steam boilers which had just been blown off. This discharge had the effect of carrying a large amount of coal silt from the pond over the outlet sluice to the stream, causing it to be again polluted. It was also noted that, to avoid further serious pollution, improvement in the condition of the settling ponds was necessary. A report was forwarded to the County Clerk,



and the owners, on being communicated with, expressed regret for what had occurred, and also promised that adequate steps would be taken to prevent further cause for complaint.

In addition to the foregoing sources of pollution, regarding which reports were transmitted to the County Clerk, reference might also be made to the action taken in connection with the following collieries, which were sources of more or less serious pollution during the year or in previous years, and at which remedial measures were provided without formal complaint being necessary:—

*Blantyre Colliery, High Blantyre.*—Pollution detected at this colliery in January was due, as in the previous year, to the unsatisfactory nature of the effluent from a surface drainage settling pond. Satisfactory improvement was effected on complaint being made. At inspections made early in May, however, it was observed that the outfall ditch and streams showed unmistakable evidence of previous gross pollution, which had probably been due to the silt-recovery tank having been run off without pumping the washings to the bin, where there is a satisfactory settling pond. Every effort was made to ascertain if this had actually occurred, but the suggestion was resisted, although it was ultimately found that the sump in which the pulsometer is placed was silted up to such an extent that the pulsometer intake was completely embedded so that it could not operate. This condition was remedied.

*Blantyreferme Colliery, Uddingston.*—Pollutions detected towards the end of the year at the outfall from this colliery to the River Clyde were believed to be due to overflow discharges from a coal-dross washings collecting pond. Evidence, however, of previous serious pollution was also observed. The matter was verbally taken up with the colliery management, and in view of the previous bad record of the colliery in regard to pollution, it was kept under special observation.

*Broomside Colliery, Motherwell.*—In the report for the preceding year reference was made to the occurrence of serious pollution of the River Clyde, on account of the fact that totally inadequate arrangements had been made for dealing with the coal-dross washings from a newly constructed washer, and to the correspondence and meeting which had taken place with reference thereto, as a result of which a promise was given on behalf of the owners that the matter would

be fully gone into with a view to adopting adequate preventive measures. There was considerable delay in providing such measures, the occurrence of serious pollution during January and February being reported. Eventually, however, early in March, a new bing pond was brought into use, which, together with existing arrangements for preventing pollution by surface and other drainage, have removed cause for serious complaint, although on three occasions during March effluent from the pond appeared to be getting into field drains, causing slight pollution. Steps were taken to prevent this.

*Dechmont Colliery, Cambuslang.*—Pollution observed on 25th April was due to intermittent abnormal discharges from the silt-recovery tank to the settling ponds, which caused the overflow from these ponds to be polluting. The cause of these discharges was believed to be due to a defect in a new washer, which commenced operations at the beginning of March. Cause for complaint was removed. Pollution observed on Saturday, 14th June, occurred between 6 and 7 o'clock in the morning, was due to a workman improperly draining a silt pond preparatory to its being cleaned out. This resulted in serious pollution, and the bed of the Light Burn below Hallside was found, as a result, and probably as a result of previous pollution in similar circumstances, to be seriously silted by coal-dross washings. The workman concerned cleaned out the burn for some distance below the roadway at Hallside, and pollution in similar circumstances is not likely to occur again. This pollution was detected as a result of observations made on several previous Saturday forenoons.

*Holytown Colliery.*—The detection of pollution on 31st January was the result of tracing up pollution of the Shirrel Burn observed at Shirrel Farm late on the previous afternoon. Pollution was found to be continuous and due to leakages from certain parts of the washer. The circumstances were fully gone into with the colliery management and measures at once taken which removed cause for complaint, although pollution was twice noted later in the year. Apart from these causes of pollution, it was not by any means certain that discharges from the settling area, which were run off intermittently early in the morning, were always satisfactory, and temporary pollution observed on 10th April was believed to come from this source. The condition of the outfall ditch suggested the occurrence of such pollution, and special observations were made with a view to its detection, although without definite results.



*Knowton Colliery, Shotts.*—Pollution detected on 24th March was not of a serious nature, but there was evidence in the Lingore Burn that more serious pollution had occurred, probably due to washings being discharged to an old ground-surface settling area instead of being pumped to the bing. The attention of the manager was drawn to the matter, and he gave instructions that all the washings had to be disposed of on the bing and the ground-surface settling area used only in an emergency. The settling area referred to was banked up, and the burn, in which there was considerable coal silt for some distance below the colliery, cleaned out. Pollutions observed on 21st November and 12th December were due to breaks in the bank of the settling area, which allowed of surface water discharging to the area, washing silt into the Lingore Burn. There was also evidence of the occurrence of more serious intermittent pollution, probably again due to discharging the silt-recovery tank to the settling area referred to, instead of pumping the effluent to the bing.

*Shawfield Colliery, near Law.*—Serious pollution detected at this colliery on 29th December was due to a break in the bank of a settling area, which it was stated had occurred on the previous day. Repairs were effected.

*Woodhall Colliery, near Holytown.*—Pollution from this colliery detected on three occasions during January was not of a serious nature. It was due to the unsatisfactory nature of the filtrate from the bing settling pond, and measures were taken which entirely removed cause for complaint.

**LEAD WASHER.**—At an inspection made by the County Medical Officer on 10th July, pollution of the Glengonnar Water was occurring, the effluent as leaving the settling ponds being found to contain 276·2 parts per 100,000 of suspended solids. The manager of the mines was written to, and he replied that the inside settling pit had been cleaned out immediately after complaint had been made and regularly since then, and that, as an additional precaution, the main outside pit had also been cleaned out. At an inspection made on 27th November, the Glengonnar Water was again found to be polluted, and formal complaint made through the County Clerk. In reply, the General Manager stated :—

“ We beg to inform you that an efficient settling pit, which  
 “ is cleaned daily, is in use within the dressing plant buildings,  
 “ and that, when treating clean ore, as at present, the outside pit

“is considered unnecessary. When washing gravel, which requires greater settling area, the outside pit will be cleaned and will receive periodical attention. To avoid any chance of further complaint, however, we will arrange to have the outside settling pit cleaned at the first opportunity.”

It was also suggested in the reply that it was desirable that the question of pollution should be discussed on the next visit of inspection.

**AMMONIA WORKS.**—The number of inspections made during the year was 114. Pollutions were recorded as occurring at Clyde Iron Works, Tollcross; Comac Oil Works, Coalburn; and Shotts Iron Works. Pollution also occurs as formerly from Uddingston and Cambuslang Gas Works respectively.

*Clyde Iron Works, Tollcross.*—At inspections made in January and February, pollution of the River Clyde by spent ammoniacal liquor from one of the outfalls from these works was observed. It was also then noted that round the mouth of the outfall, tar in large quantity was found adhering to the bank of the river, which showed that serious pollution by tar, of possibly recent occurrence, had taken place. In addition, there was evidence of such pollution on the right bank of the river at various points for a long distance below the outfall. With regard to the pollution by spent ammoniacal liquor, while it was quite obvious to the eye, samples taken showed that the amount of phenols contained in the effluent was small and that the pollution caused was slight. It was considered desirable, however, to communicate with the owners in respect of both tar and spent liquor pollution and a report on the subject was forwarded to the County Clerk. The owners' reply was to the effect that they were not aware of any pollution. Subsequently, in March, and later, it was noted that no spent liquor was being discharged by the outfall referred to, but that it was noticeable at an outfall a short distance up the river. Pollution was still occurring, however, and the explanation of the changed point of discharge was probably that, whereas in January and early in February spent liquor was found discharging to an earth-work pond within the works' grounds, it was being discharged amongst debris heaps on ground outwith the works proper. It should also be noted that, in the course of inquiries made during the month of June into the question of iron pollution of the Battles Burn (referred to at page 84), it was stated that most of the spent liquor was being evaporated.

*Comac Oil Works.*—Pollution of the Coal Burn, observed at these works on 16th October, was due to the spent liquor flowing direct to the stream, instead of to mine workings, owing to the inlet to the workings being allowed to close up. Verbal attention was drawn to the circumstances, and in the course of a few days steps were taken to have the effluent again discharged to the workings, when cause for complaint was removed. These works had been closed for about a year and were only in temporary operation for a short period for test purposes.

*Shotts Iron Works.*—On several occasions traces of spent ammoniacal liquor and sometimes oil have been observed in the South Calder Water, due usually to leakages in pipes or pumps, which have always been attended to on verbal complaint being made. On 17th June, however, a complaint of pollution was received, which was ascertained on inquiry to have been due to an escape of ammoniacal liquor on Sunday, 15th June, as a result of the joints of a pipe becoming defective. Repairs were effected. On 17th and 18th June the South Calder was discoloured a deep red, but there was then little or no water in the stream on account of drought.

*Uddingston Gas Works.*—A complaint from a resident in Douglas Gardens, Uddingston, alleging the existence of nuisance conditions due to pollution of the Myers Burn, was received in December. The burn was cleaned out, by employees at the gas works, from the works to the Bellshill Road during the month of September.

MANUFACTORIES.—The number of inspections made during the year was 36, nearly all of which were at Caldercruix and Moffat Paper Mills.

*Caldercruix Paper Mills.*—The following figures show the amounts of suspended solids in parts per 100,000 contained in the samples taken at these mills during the year. The standard for a paper mill effluent recommended by the Royal Commission on Sewage Disposal is 6 parts per 100,000 :—

Date of Sampling.	Upper Outfall.	Lower Outfall.	Sludge Area Pipe.
7th March, ...	6·4	19·8	—
19th May, ...	—	—	43·6
22nd August, ...	24·4	20·8	“Trace.”
14th October, ...	10·6	12·0	16·0

*Clyde Paper Mills, Eastfield, Rutherglen.*—These mills discharge their trade effluents to the public sewer, but on 1st and 11th February discharges from a pipe which comes from the mills were observed to be sources of pollution of the River Clyde. The pipe referred to normally conveys a small quantity of fairly clear water, and the pollutions referred to, which were only temporary, and probably of short duration, were explained to have been due to a defect in the works' drainage system and were not at all intentional.

*Moffat Paper Mills.*—The following figures show the amounts of suspended solids, in parts per 100,000, in the samples taken at these mills during the year :—

Date of Sampling.					Suspended Solids.
10th January,	...	...	...	...	13
7th March,	...	...	...	...	62
29th „	...	...	...	...	54·6
14th April,	...	...	...	...	25·8
15th „	...	...	...	...	37
25th August,	...	...	...	...	28·2
13th October,	...	...	...	...	18·8
24th „	...	...	...	...	43·2

### Solid Matter Pollution.

Attention was drawn by the Rivers Inspector to the fact that the waste materials and ashes from Clyde Paper Mills, Eastfield, Rutherglen, which are disposed of on a large area of ground to the east of the mills, were being deposited so close to the River Clyde that there was danger, during spate, of part of the deep bank formed by the waste materials being washed away along its frontage of about 200 yards on the river side. There was clear evidence that this had occurred. This matter had verbally, in 1924, been taken up with the owners of the mills, when it was understood that tipping close to the river had to be discontinued. The County Clerk communicated with the Company in the present complaint and the continuation of the tip eastwards was altered so as to keep the bank at a safe distance from the river.

The Rivers Inspector also reported that an infringement of Section 2 of the Rivers Pollution Prevention Act, 1876, was involved in respect of the encroachment on the North Calder Water of the refuse bin at Woodhall Colliery, No. 1 Pit, to such an extent as to

interfere with the due flow of the stream. The colliery owners remedied the matter.

A complaint was received that a farmer at Gillhead, near Waterloo, had been tipping or depositing refuse into the Garrion Burn. The offender was cautioned by the Rivers Inspector, and it is believed that there is now no cause for complaint.

Pollution, due to refuse from a coup near Shotts Gas Works getting into the South Calder Water, is mentioned at page 89.

### **Sewage Pollution and Sewage Disposal.**

In connection with sewage pollutions, 376 inspections were made of sewage purification works and sewage outfalls, and 47 samples taken.

Unsatisfactory conditions resulting in pollution were observed at the undernoted sewage purification works:—

Purification Works.	Dates of Inspection.	Notes of Inspections.
Bishopbriggs,	15th September,	Large discharge of crude sewage by storm overflow.
Cambuslang (Threeneuk),	15th January,	Crude sewage passing to River Clyde.
Carbarns (Wishaw),	{ 21st January, } { 28th May, }	Crude sewage discharging direct to River Clyde
Carstairs Junction Housing Scheme Outfall,	25th July,	Crude sewage effluent discharging from tank to River Clyde.
Carstairs Junction Main Outfall	25th July,	Sewage discharging without treatment to small stream which joins the River Clyde.
Chryston and Muirhead (Moodiesburn Tank),	15th September,	Crude sewage discharging to stream.
Newton and Flem- ington,	15th January,	Whole of sewage discharging crude to the Newton Burn.
	21st „	Almost whole of sewage discharging crude to the Newton Burn.
Stepps,	15th September,	Large flow of tank effluent to Garnkirk Burn.
Westthorn (Tollcross),	Jan. to Sept.,	Part of crude sewage discharging direct to River Clyde.
	{ Oct., Nov., and } { Dec., }	During almost whole period all sewage discharged to River Clyde. Works outfall sewer being re-constructed.



The pollutions occurring at Bishopbriggs, Moodiesburn, Stepps, and Westthorn Sewage Purification Works have from time to time been reported on, and were again observed, as were also the conditions at Carstairs Junction, during a survey by the County Medical Officer in connection with a report on the question of drainage and sewage disposal facilities. This survey was carried out in the months of July and September, and formed the subject of a special printed report, dated 6th October, and a supplementary report, dated 21st October, which are further referred to at pages 70-74.

It was agreed, on 4th September, to proceed with a scheme of extension and improvement of Bishopbriggs Sewage Purification Works (which had been under consideration by the former Lower Ward District Committee), an unemployment grant of £5,000 having been intimated. With regard to Carbars (Wishaw), a report was forwarded to the County Clerk, who communicated with the Burgh of Motherwell and Wishaw Authorities, in respect of the pollution of the River Clyde occurring on 28th May, which, on account of the drought, was reported to be very serious. Samples of the river above and below the outfall were taken for analysis on this occasion. In reply to the County Clerk's communication, a letter, dated 31st July, was received from the Town-Clerk, stating that designs for proposed sewage purification works were then being obtained, and that the construction of the works would be proceeded with as soon as possible. With regard to Westthorn Sewage Purification Works, a report was forwarded to the County Clerk on 2nd June as to the unsatisfactory nature of the treated effluent discharged from the works for some time previously, together with the results of analyses of samples taken in each of the five months, January to May. It has also to be recorded that, during part of October and all November and December, the whole of the sewage conveyed by the works' outfall sewer was discharged direct to the River Clyde on account of the fact that the sewer was being relaid by the Glasgow Authorities. No sewage was therefore being treated during that period. The written attention of the District Engineer was drawn to the conditions found at Cambuslang and at Newton and Flemington Works, and at subsequent inspections the outfalls, as regards crude sewage, were found to be satisfactory.

*Burgh of Coatbridge.*—An inspection was made on 22nd September to note the progress being made with the sewage purification works

for Coatbridge, the construction of which was commenced on 20th March. They are expected to be completed by the end of September, 1931. The effluent will discharge to the Luggie Burn.

*Chapelton Drainage.*—The owner of Noltlairs Farm complained in the month of September that the sewage from Chapelton, which flows on to his lands in an open ditch, was doing considerable damage to one of his fields, and requested that the sewage should be conveyed through his lands in an underground drain. The Rivers Inspector and Sanitary Inspector made inquiries into the complaint, and the County Council agreed, without prejudice to their position (Chapelton village not being a special drainage district) and at their expense, to have the ditch cleaned out and an existing tile drain lifted and relaid. These improvements were duly carried out.

*Dalzell Burn (Burgh of Motherwell and Wishaw).*—During July and August this stream and its tributary, the Rumbling Sike, were grossly polluted by crude sewage, which was ascertained to be due to a sewer from the Craigneuk area of the Burgh of Motherwell and Wishaw being damaged, and the sewage by-passing to the Rumbling Sike. The repair by the Burgh Authorities of the damaged sewer was commenced in the beginning of August. Complaint of nuisance arising from the conditions referred to was made by the factor on Dalzell Estate.

*Ditch on Gainerhill Farm, Avondale.*—At the end of September a complaint was received from the occupier of this farm that sewage from two newly-constructed roadmen's houses (only one of which was occupied at the time of complaint) discharged into a ditch in a field where his milk cows grazed, and that this arrangement was very unsatisfactory. Inquiries were duly made into the matter, when there was then found to be no ground for complaint. An efficient tank and filter had been provided for the drainage of the houses, and there was no evidence whatever of pollution. Should it be considered desirable, however, at some future time to take the effluent out of the ditch, it may be possible to arrange for this being done.

*Glasford Drainage.*—A commencement was made on 30th September with the construction of the sewers required for a scheme of sewerage and sewage disposal for Glasford Village.

*Glenboig Drainage.*—A scheme of sewerage and sewage purification works for Glenboig having been approved, and an unemployment



grant obtained in respect thereof, a commencement was made with the work on 14th October. The sewage purification works are to be of the Activated-sludge (Ames Crosta) type. The amount of the loan is £23,140.

*Holytown and New Stevenston Drainage.*—A storm overflow outlet was found during dry weather discharging a heavy flow of crude sewage to the Shirrel Burn, and causing serious pollution. The circumstances were reported to the Engineer and cause for complaint was removed.

*Rutherglen Drainage.*—A complaint was received from the Richmond Park Laundry Company on 2nd September with regard to flooding of their premises during heavy rainfall, alleged to be due to the inability of the sewers to cope with the flow in these circumstances. Inquiries were made into the complaint by the Rivers Inspector and a communication sent to the County Clerk. Similar complaints were also received from other parties, as well as one from the General Manager of Glasgow Sewage Department as to a discharge of sewage to the River Clyde immediately east of Dalmarnock Bridge, and it was remitted to the Engineer to report on the whole question of the condition and adequacy of the sewerage system in the Eastfield and Farme areas. Subsequently (29th October) a sub-committee of the Drainage Committee was appointed to go into the matter and report.

Sewage polluted ditches or streams at the following places were cleaned out during the year, viz., Calderbank, Drumpark (Bargeddie), Easterhouse, East Kilbride, Gartloch Asylum, Gartloch Distillery, Greengairs, Morningside, Newarthill, Overtown, Quarter, Ross House, near Hamilton, Shotts (South Calder), and West Craigneuk Farm, near Airdrie. With the exception of the ditches at Gartloch Asylum and Gartloch Distillery, the work was done by the Public Health Department.

*Drainage and Sewage Disposal—Special Reports.*—A sub-committee having been appointed to consider and report on the question of carrying out drainage works with the assistance of unemployment grants, the County Medical Officer made a survey of sewage outfalls and sewage purification works throughout the County, and submitted a report, dated 6th October, and a supplementary report, dated

21st October, on the question. The principal report dealt with, in detail—

- (1) Areas outwith Special Drainage Districts, for which drainage and sewage disposal facilities are required, a matter which, in the former Middle Ward District, had been the subject of special consideration and inquiry; and
- (2) Special Drainage Districts, for which sewage purification works are required, or in which existing sewage purification works require extension or improvement.

This report gave special consideration to the question of the order of urgency of the works required under each heading, and the supplementary report was prepared to show the order of urgency of the schemes necessary as a whole, without regard to whether the areas concerned were outwith or within Special Drainage Districts. The report thus prepared contained 57 localities and special districts throughout the County, and showed the nature of the works required, whether drainage and sewage purification works or sewage purification works only, arranged in order of urgency, and was in the following terms. Both reports drew special attention to the unsatisfactory condition of the Rutherglen Joint-Intercepting Sewer:—

21st October, 1930.

DEAR SIR,

#### DRAINAGE AND SEWAGE DISPOSAL.

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#### UNEMPLOYMENT GRANTS.

I duly received your letter of the 16th current. The report deals with two different classes of works, viz. :—

- (1) Drainage or sewerage works (including sewage purification works) which would allow of the general introduction of modern conveniences into the houses in the areas dealt with;
- (2) The provision of sewage purification works where they do not exist, or the extension or improvement of existing works, all in areas which already have complete drainage or sewerage systems.

The two classes have, therefore, been dealt with separately. As it is quite obvious that the whole of the works recommended cannot be carried out at once, and as each class has already been arranged in

order of urgency, the first ten, say, in the list of areas requiring drainage, viz. :—

Calderbank,  
Ferniegair,  
Crawford,  
Salsburgh (also in sewage purification works' list),  
Waterloo,  
Caldercruix and Glengowan,  
Bellside, &c., Cleland,  
Newarthill,  
Greengairs,  
Glenmavis,

and the first eight in the sewage purification works' list, viz. :—

East Kilbride,  
Lesmahagow,  
Salsburgh (also in drainage list),  
Carfin,  
Douglas,  
Larkhall,  
Chapelhall,  
Cleland and Omoa,

might first be considered together, and in the following order of urgency, viz. :—

Calderbank,  
East Kilbride,  
Ferniegair,  
Lesmahagow,  
Crawford,  
Salsburgh (in both lists),  
Waterloo,  
Carfin,  
Newarthill,  
Douglas,  
Caldercruix and Glengowan,  
Larkhall,  
Bellside, &c., Cleland,  
Cleland and Omoa,  
Chapelhall,  
Greengairs,  
Glenmavis.

Following these, the extension and improvement of certain sewage purification works in the former Lower Ward District would come in. These are works which have already been approved of and should be carried out as soon as possible. I have carefully considered the order of urgency of the works in the remaining areas. The large schemes of sewage purification for areas such as Cambuslang, Baillieston, Bellshill and Mossend, &c., are all urgent, and in my view, take

precedence over many drainage schemes. The whole matter will no doubt, however, be fully discussed by the Sub-Committee, and, in view of your letter, I have recast the order of urgency in the following complete list:—

Area or Special District.	Nature of Works.
1. Calderbank, ... ..	Drainage and Sewage Purification.
2. East Kilbride, ... ..	Sewage Purification.
3. Ferniegair, ... ..	Drainage and Sewage Purification.
4. Lesmahagow, ... ..	Sewage Purification.
5. Crawford, ... ..	Drainage and Sewage Purification.
6. Salsburgh, ... ..	Drainage and Sewage Purification.
7. Waterloo, ... ..	Drainage and Sewage Purification.
8. Carfin, ... ..	Sewage Purification.
9. Newarthill, ... ..	Drainage and Sewage Purification.
10. Douglas, ... ..	Sewage Purification.
11. Caldercruix and Glengowan,	Drainage and Sewage Purification.
12. Larkhall, ... ..	Sewage Purification.
13. Bellside, &c., Cleland, ...	Drainage and Sewage Purification.
14. Cleland and Omoa, ... ..	Sewage Purification.
15. Chapelhall, ... ..	Sewage Purification.
16. Greengairs, ... ..	Drainage and Sewage Purification.
17. Glenmavis, ... ..	Drainage and Sewage Purification.
18. Barony, ... ..	Sewage Purification.
19. Bishopbriggs, ... ..	Sewage Purification.
20. Carmunnock, ... ..	Sewage Purification.
21. Chryston and Muirhead, ...	Sewage Purification.
22. Stepps, ... ..	Sewage Purification.
23. Cambuslang, ... ..	Sewage Purification.
24. Baillieston, ... ..	Sewage Purification.
25. Shotts and Dykehead, ...	Sewage Purification.
26. Bellshill and Mossend, ...	Sewage Purification.
27. Uddingston, ... ..	Sewage Purification.
28. Blantyre, ... ..	Sewage Purification.
29. Bothwell, ... ..	Sewage Purification.
30. Mount Vernon, ... ..	Sewage Purification.
31. Leadhills, ... ..	Drainage and Sewage Purification.
32. Forth and Wilsontown, ...	Drainage and Sewage Purification.
33. Bargeddie, Swinton and Easter- house, ... ..	Drainage and Sewage Purification.
34. Birkenshaw, ... ..	Drainage and Sewage Purification.
35. Meikle Earnock, Cadzow, &c.,	Drainage.
36. Plains, ... ..	Drainage and Sewage Purification.
37. Bothwellhaugh, ... ..	Drainage and Sewage Purification.
38. Carstairs Junction, ... ..	Sewage Purification.
39. Gartcosh, ... ..	Sewage Purification.
40. Newmains, ... ..	Sewage Purification.
41. Newton and Flemington, ...	Sewage Purification.
42. Law, ... ..	Sewage Purification.
43. Carnbroe, ... ..	Sewage Purification.
44. Blackwood and Auchenheath,	Sewage Purification.

Area or Special District.	Nature of Works.
45. Bothwellpark, ... ..	Sewage Purification.
46. Carstairs, ... ..	Sewage Purification.
47. Coalburn, ... ..	Sewage Purification.
48. Quarter, ... ..	Drainage and Sewage Purification.
49. Braidwood, ... ..	Drainage and Sewage Purification.
50. Netherburn, ... ..	Drainage and Sewage Purification.
51. Chapel and Morningside, ... ..	Drainage and Sewage Purification.
52. Auchintibber, ... ..	Drainage and Sewage Purification.
53. Chapeltown, ... ..	Drainage and Sewage Purification.
54. Mollinsburn, ... ..	Drainage and Sewage Purification.
55. Abington, ... ..	Sewage Purification.
56. Crawfordjohn, ... ..	Drainage and Sewage Purification.
57. Newbigging, ... ..	Drainage and Sewage Purification.

#### RUTHERGLEN JOINT-INTERCEPTING SEWER.

The question of the unsatisfactory condition of this sewer is very urgent, and should receive special and immediate consideration.

I am,

Yours faithfully,

(Sgd.) J. HUME PATTERSON,  
*County Medical Officer.*

THE COUNTY CLERK,  
Lanarkshire House,  
191 Ingram Street,  
Glasgow, C.1.

The sub-committee, having considered these reports, agreed to recommend that, conditional on full unemployment grants being obtained, schemes for the following areas should be proceeded with in the order in which they are shown, viz. :—

Calderbank.	Douglas.
East Kilbride.	Caldercruix and Glengowan.
Ferniegair.	Larkhall.
Lesmahagow.	Bellside, &c., Cleland.
Crawford.	Cleland and Omoa.
Salsburgh.	Chapelhall.
Waterloo.	Greengairs.
Carfin.	Glenmavis.
Newarthill.	Leadhills.

and that the question of proceeding with further schemes should be continued.

### Streams.

In connection with trade and sewage pollutions, 2,054 inspections were made and 1,200 samples taken. These included 100 special samples of the River Clyde and certain of its tributaries.

During the months of May and June, on account of long continued drought, an unusually large number of complaints of pollution was received. These, along with other complaints specially investigated and reported on, are referred to in the following paragraphs:—

*Biggar Burn.*—Information was received on 20th May through the Constabulary that, on Sunday, 18th May, a very large number of dead trout (said to have been about 200) had been observed in the Biggar Burn at various points between the bridge carrying the main road at Biggar West End and the Public Park. Immediate and full inquiries were made into the matter in company with the Local Police Sergeant, and inspections of the burn made, without, however, ascertaining what had been the cause of the destruction of fish life. The only normal pollution of the stream is the effluent from Biggar west-end sewage irrigation fields, and it was hardly necessary to consider this source of pollution as many of the dead trout were found well above the outfalls from the irrigation fields. Local opinion seemed to suggest that the gas-works, which are situated close to the burn, had been the source, but nothing was ascertained there to confirm that suggestion, although careful inspection of the surface drainage arrangements of the works revealed a point at which, in the event of accidental spillage of ammonia liquor, this liquor would be conveyed by a drain to the burn. Suspicion was also cast on a farm, situated about a mile above the gas-works, from the dungstead, of which a considerable quantity of "wash" had been draining to the burn, but as no dead trout were found between the farm and the gas-works, it is reasonable to assume that this was not the source of pollution responsible for killing the trout. In the course of the inquiries, it was mentioned that dead trout had been found in the burn three weeks before the time of the complaint under investigation, and it is also understood that fish destruction occurred on another previous occasion—four or five years ago. With further regard to the gas-works, the Rivers Inspector suggested that to prevent the possibility of ammonia liquor gaining access to the burn, the ground round the opening to the drain referred to should be built up. This was subsequently carried out. With regard to the sewage irrigation



fields, both the west-end and east-end works were inspected and effluent and stream samples taken for analysis. The fields at both outfalls were found in quite good order, except that in the case of the west-end outfall there was a polluting discharge from the main distribution channel, and in the case of the east-end outfall, the effluent seemed to be having rather free access to the main under-drain, the ditch which receives the effluent being polluted, though not seriously. Reference was made at the inspection to smell from the west-end fields in summer weather, and to the depositing of rubbish in the burn. As a deterrent to this practice, "caution" notices were put up in suitable places and part of the burn cleaned out. A copy of the report of the inquiries, as well as of the results of analyses of the samples taken, were forwarded to the Town-Clerk.

*Bothlin Burn, Auchengeich Works.*—With reference to the question of pollution of the Bothlin Burn by oil conveyed in the effluents from Auchengeich Works, referred to in the report for the preceding year, inquiry was made in February by the Department of Health, with special reference to a report by the County Medical Officer, dated 4th June, 1929, as to how this matter stood, and in connection therewith a further report was submitted, from which the following extract is taken :—"The outfall for which satisfactory provision has not been made is the upper outfall, that is the one conveying coke-quenching water, and Mr. Williamson is prepared to recommend the construction of oil-collecting ponds, similar to those recently constructed to deal with other effluents from the by-product plant discharged by the lower outfall, to replace the existing small ponds situated close to the Bothlin Burn. If this were done, and the cleaning of the ponds and removal of collected oil regularly and carefully attended to, cause for complaint of oil pollution would probably be entirely removed." The owners of the works subsequently wrote to the County Clerk on 17th March that they had taken up the matter with a view to remedying anything that might be at fault. There was delay, however, in doing so, on account of the fact that the work could not be gone on with until the sewage disposal arrangements for pit-head baths had been completed, and in the month of October, when the Department made further inquiry as to whether the oil ponds had been constructed, it was found that the work was still delayed for the same reason, and was not completed at the close of the year. It might be here mentioned that the owners of the works, in replying to the County Clerk's communication,



dated 30th July, as to coal-dross washings and oil pollution, made the following observations with reference to the condition of the Bothlin Burn, as to suspended matter, above their works:—

“Our manager takes exception to the reference in your  
“previous letter as to there being no deposit in the Bothlin  
“Burn above the outfall, and we would like to stress the point  
“as to this statement. One of our greatest troubles in connection  
“with the water for the boilers obtained from the burn is the  
“amount of solid matter which is in the water, and this being  
“so, we cannot be responsible for this condition.”

In reply to these observations, the County Medical Officer wrote to the County Clerk in the following terms:—

“The Bothlin Burn above Auchengeich Colliery normally  
“contains little or no suspended solids. No doubt in times of  
“flood the amount of solids in suspension will be considerable.  
“The question raised as to the treatment of this water by  
“filtration, &c., previous to use in boilers, is easily understood,  
“as quite clearly a probable amount of one grain per gallon  
“multiplied by the thousands of gallons of water used daily at  
“Auchengeich means a very considerable amount of deposit  
“which they find necessary to remove from their boiler feed  
“water.”

*Bothlin Burn, Iron Pollution.*—On the occasion of inspections made on 26th and 27th February, the Bothlin Burn in the “dead” portion between Auchengeich Works’ intake and Bridgend Sewage Purification Works was observed to be of a peculiar greenish-yellow colour, and on several days in March a special survey of the stream was made covering its whole course from above Glenboig to below Auchengeich. The result of this survey showed that the discoloration referred to was mainly caused by effluent containing iron discharged from Gartcosh Iron Works, and was specially noticeable at the time of inspection on account of the low flow of water in the stream.

*Bothlin Burn, Petition as to Cleaning of the Burn, &c.*—A report of inspections and inquiries made by the Rivers Inspector with regard to a Petition which had been presented to the Department of Agriculture for Scotland by agriculturalists and others concerned, asking for Government assistance towards the cost of cleaning and deepening the Bothlin Burn and tributaries and cleaning the Bishop

Loch, was transmitted to the Middle Ward District Clerk, to whom a copy of the Petition had been sent. The County Medical Officer also inspected the main stream and its headstreams where complained of, and in transmitting the Inspector's report he remarked that the streams complained of required to be cleaned out, but that to do this would be a very costly matter. It was also pointed out that there was no necessity to clean out the Bishop Loch.

*Cadzow Burn.*—Special inspections were made of this stream on 1st and 4th February in connection with an intense light-brown discoloration observed on the former date as the stream flowed through Hamilton. These inspections showed that this had been due to the fact that a slip had occurred on the railway line where it crosses Neilsland Glen about half a mile from Meikle Earnock Station, and that the debris had covered the mouth of a culvert carrying a small tributary of the Neilsland Burn, and that further, the water dammed back in the culvert, when released during repair work, had carried everything before it, the stream being seriously discoloured, due mainly to the clay in the debris.

*Car Sike, Mossend.*—Communications were received from the owners of Clydesdale Iron and Steel Works, Mossend, intimating that it was their intention to, as usual at Glasgow Fair Holidays, clean out their water pond, and observing that they gave the intimation so that the Car Sike ditch might be cleaned out beforehand with a view to the prevention of flooding at a housing scheme situated below the works, and particularly where the ditch referred to is piped in. Such flooding had previously occurred. The ditch was therefore cleaned out as suggested, and no flooding occurred during the time the pond was being cleaned. It might be noted that while this work is in progress serious pollution occurs. Thus, two ditch samples then taken contained, respectively, 390.4 and 554.2 parts per 100,000 of suspended solids.

*Dalzell Burn.*—Reference to a complaint as to sewage pollution of this stream is made at page 69.

*Ditch on Hawbank Farm, East Kilbride.*—A complaint was received with regard to a dungstead-drainage and domestic-sewage polluted ditch on this farm, which drainage comes from an adjoining farm. Steps were taken to remove cause for complaint. Dairy cattle have access to the ditch.

*Ditch at Pather Iron Works (Waterloo Drainage).*—A communication, dated 4th July, was received from the Pather Iron and Steel Company, Ltd., complaining of the seriously polluted condition of the ditch which rises in the Waterloo area, and is impounded in a large reservoir at their works for industrial purposes. The complainers alleged that serious nuisance conditions existed in and around the works, and that the polluted water seriously injured their steam boilers. Subsequently (18th August) a communication from the Law Agents for the firm was received, referring to their clients' complaint, and further stating that as a result of crude sewage pollution of the ditch, the reservoir at the works was being silted up. They also stated that unless within a week they had an undertaking to execute without delay the works necessary to prevent continuation of the nuisance, and also to remove the silt from the reservoir, they were instructed to take the matter into Court. Inquiries and inspections were made by the Rivers Inspector and the Engineer's Department and full reports on the question submitted. These reports showed that there was undoubted serious sewage pollution of the ditch referred to, caused mainly in recent years by the discharge of untreated sewage from new housing schemes at Waterloo, and also pointed out that the same ditch had been complained of in August, 1929, by the L.M. & S. Railway Company, and that it had been since then twice cleaned out by the Sanitary Department with a view to effecting temporary improvement. The Engineer's report also dealt with the question of the means of preventing pollution and the cost of sewage purification works. The Waterloo area is one of those referred to in the County Medical Officer's special reports on drainage and sewage disposal, and was also reported on by the District Engineer in February, 1927.

*Ditch at Springboig Holiday School, Shettleston.*—A complaint, dated 29th April, was received from the Education Authority of Glasgow, as to the alleged pollution of a ditch which flows through the grounds of this school. The ditch was alleged to be in a filthy, slimy condition, and that at times it gave off a most disagreeable odour. Inquiries and sampling of the ditch showed that it was polluted as alleged, and that the source of pollution was a large piggery, housing over 200 pigs, situated near Queenslie Colliery, and not far from the school. The Rivers Inspector found that the tank which deals with the piggery drainage was completely full of solid matter, and that serious pollution of the ditch occurred when the

piggery premises are washed out, which is done twice daily. The tank was subsequently cleaned out, and the District Sanitary Inspector was instructed to see that no further cause for complaint arose. Further complaints were received, however, one, in July, from a resident in Springboig, and another from the original complainers, in the month of September. The matter was therefore again taken up in conjunction with the Sanitary Department, the Rivers Inspector and Sanitary Inspector meeting the owner of the piggeries and discussing means for satisfactorily removing cause for complaint. Certain remedial measures were agreed on, but difficulties arose in the carrying of them out, and the matter was not disposed of at the close of the year.

*Douglas Water.*—At inspections made of the Douglas Village sewage tanks outfalls to the Douglas Water on 17th, 19th, and 20th June, gross pollution of the stream was occurring due to the discharge of sewage in a crude state to the stream. The County Medical Officer made an inspection on the 19th June, and a report was transmitted to the County Clerk, in which the condition of the Douglas Water was described and the very unsatisfactory nature of the preventive measures pointed out.

*Gowkthrapple Burn below Pather Iron Works.*—A complaint was received from the occupier of Castlehill Farm that the above burn, on his farm, was being polluted by oil conveyed by the overflow water from the reservoir at Pather Iron Works. This is the reservoir referred to above in connection with the complaint of sewage pollution made by the owners of the iron works. It was alleged that several of the cows on the farm had been ill as a result of drinking the water of the stream. Inspections were made and the stream found to be seriously polluted by oil, which the manager of the iron works admitted, and it was arranged that a series of baffle boards would be placed at certain points to intercept the oil, which would be regularly removed. These measures were duly carried out and proved effective. With regard to the alleged illnesses in the dairy herd, believed by the farmer to have been due to the oil pollution, it was considered desirable to ask the County Veterinary Inspector to make investigations. This was done on 24th September, when specific complaint was made with regard to one cow only. The animal, on examination, was suspected to be tuberculous, and was put under restriction and the tuberculin test applied. This test gave a positive result and the animal was dealt with under the Tuberculosis Order.

*How Burn, Harthill.*—Complaint was made in the month of September by the United Collieries, Ltd., as to the silted-up condition of the How Burn, due to the discharge into it of crude sewage from Harthill Special Drainage District, and asking that the burn should be cleaned out. In view of the fact that complete sewerage and sewage purification works for the district were under construction, it was considered by the Drainage Committee that the question of the condition of the burn could best be dealt with when these works were finally completed.

*Kittoch Water.*—Complaints were again received alleging serious effluvia nuisance due to pollution of the Kittoch Water by the effluent from East Kilbride Sewage Purification Works. These complaints were followed by a communication from the Law Agents for the complainer. A report on the sewage purification works, and as to the condition of the Kittoch Water, was transmitted to the County Clerk, and, with a view to effecting temporary improvement, the Kittoch Water was cleaned out in the vicinity of Burnbrae Bridge and the flow otherwise improved. Proposals for cleaning out the filters at the works and renewing the filtering material, which had been considered in April, 1929, and agreed on, were left in the hands of the Engineer. It was proposed to spread the work over three years, the intention being to renew two of the five filters in 1930, commencing the work in the autumn. In a further report by the Engineer, dated 8th November, however, it was suggested that the whole of the filter beds should be dealt with at once, application being made for an unemployment grant (the estimated cost being £950) in respect of the work, and that, if this were done, cause for complaint of pollution of the Kittoch Water might be considerably minimised until such time as the purification works could be extended. The suggestion was approved of, but the work had not been commenced by the end of the year.

*Newton Burn.*—A complaint as to intermittent iron pollution of the Newton Burn was received from the Superintendent of Clydesmill Electric Power Station, which is situated at Carmyle weir. The complaint was at once inquired into and was believed to be due to intermittent polluting discharges from Clyde Nail Works, which had been a source of intermittent pollution in previous years. A report on the matter by the Rivers Inspector, which was forwarded to the County Clerk, showed that he considered that a tank which had been



provided at these works in 1926 to intercept the effluents referred to was defective, and the County Clerk communicated with the owners of the works in the matter. It may, however, be necessary to adopt other remedial measures to prevent cause for complaint. In the course of inspections of the burn, evidence of pollution by coal-dross washings from Dechmont Colliery was observed. This matter was dealt with. It was also observed that the stream at Westburn was in a serious state of silting due largely to steel scalings, and to be seriously polluted by oil, both of which pollutions no doubt came from Hallside Steel Works. The burn was also polluted by rubbish of all descriptions. It was at the same time noted that the burn and a tributary ditch were being cleaned out by men of the Highways Department. They were employed at this work for several weeks.

*River Avon at Larkhall.*—Complaint was made as to sewage pollution of the River Avon and as to resulting nuisance near Fairholm House. Similar complaint was made in 1913, 1917, and 1929. A report of the circumstances was forwarded to the County Clerk. In this report the sewage outfalls opposite Fairholm and at Millheugh were referred to. The former effluent is a tanked sewage effluent, and a suggestion was made to pipe the effluent well into the river as a remedy for removing complaint of nuisance. At present the effluent falls over rocks and spreads over the rocky bed of the stream when the flow in the river is low. The Millheugh outfall conveys crude sewage as well as tanked effluent, and, further, in very dry weather there is little or nothing but the sewage effluent in the stream, the water being taken away from it by the lade to Avonbank Bleach Works.

*River Clyde in its Lower Reaches above Dalmarnock.*—During January and February the stretch of the River Clyde from the railway bridge at Clyde Iron Works to Dalmarnock Bridge was under special observation, and a report submitted with regard to sources of pollution affecting that area. The County Medical Officer inspected most of the sources of pollution referred to. These, arranged in topical order, are as follows:—

*Entering from the area on the right side of the River—*

- (a) Within the area of the County of Lanark—from Clyde Iron Works;
- (b) within the area of the City of Glasgow, but under the administration of the County of Lanark—from Westthorn Sewage Purification Works.

*Entering from the area on the left side of the River—*

- (a) From Clydebridge Steel Works;
- (b) from the Rutherglen joint-intercepting sewer by a storm overflow at Clyde Paper Mills corner;
- (c) from a pipe situated a few yards below (b) which should normally convey non-polluting effluent from Clyde Paper Mills;
- (d) from the Rutherglen joint-intercepting sewer by a storm overflow at Eastfield Paper Mills corner;
- (e) from the Rutherglen joint-intercepting sewer by a storm overflow situated about 200 yards east of Dalmarnock Bridge;
- (f) from Farme Estate sewer outfall situated about 150 yards east of Dalmarnock Bridge.

In addition, a contravention of Section 2 of the Rivers Pollution Prevention Act, 1876, in respect of the disposal of solid trade refuse and ashes from Clyde Paper Mills was involved.

Nearly all the above sources of pollution have from time to time been the subject of complaint by the County Council to the local authorities and private interests concerned, and also by the Corporation of Glasgow, whose most recent complaints were made in March and July of 1928. It was, however, desirable that the present conditions should be reviewed, which was fully done in the report referred to.

*River Clyde at Clyde Paper Mills, Eastfield.*—On 30th May the Secretary of the Clyde Paper Company, Ltd., telephoned to complain that the river opposite their mills was in a very seriously polluted condition, and that their water supply was being so badly affected that the mills might have to stop. Immediate inquiries were made into the complaint, when it was found at the paper mills that the walls of the Clyde water reservoirs were stained a faint light brown colour, and also that small pieces or patches of an irony-looking froth or scum were floating on the surface of the water. On inspecting the river, it was observed that, apart from the gross pollution occasioned by the discharge from the Rutherglen joint-intercepting sewer immediately above the mills' water intake (and which is also complained of by the owners of the mills and other works proprietors lower down), the river was abnormally polluted a yellowish-brown



colour, particularly observable on the far side. It was explained that the pollution was not nearly so bad then (at noon) as it had been some hours earlier, and that while such pollution occurred intermittently it had never been so bad as it was that morning. The flow in the river was then, and had been for some time, very low. All the sources of pollution from Cambuslang downwards which might cause the pollution were carefully examined, with the result that the source of the pollution was found to be the Battles Burn, which joins the river at the northern boundary of Clyde Iron Works. A full report of the inquiries was submitted, and subsequently investigations were begun with a view to ascertaining the source or sources of pollution of the Battles Burn. The results of these investigations, which extended over several days, were summarised as follows:—

- (1) Iron pollution of the River Clyde, alleged, during the recent and continuing drought, to have been intermittently intense, has been seriously complained of by the owners of Clyde Paper Mills, Rutherglen, at which the river water is used for trade purposes.
- (2) The pollution referred to has been traced to originate in the Battles Burn, which joins the River Clyde at the northern boundary of Clyde Iron Works, about a mile above Clyde Paper Mills.
- (3) The Battles Burn, from the Hamilton Road at Tollcross Tube Works, is now an underground stream, and beyond the effluents from Tollcross Tube Works and Clyde Iron Works there is at present practically no other water in the burn. There is a distance of roughly a mile between the point of entry of the tube works effluent near the Hamilton Road and the iron works effluent a few yards above the junction of the burn and the River Clyde.
- (4) The flow of effluent from the tube works is continuous during working hours, but does not seem to be nearly so large in volume as that from the iron works, and is at frequent intervals, at any rate when certain pickling baths are discharged, an iron-acid effluent which also, even normally, contains a percentage of oil or greasy matter.
- (5) The effluent discharge from the iron works is also continuous (it never ceases), and may contain iron. This effluent is understood to be tuyère water. It is pumped from the River Clyde and is not used for any purpose other than cooling the blast-furnace tuyères, except that it is first used in the engine condensers.

After consideration of all the information obtained, the following letter, dated 28th June, was sent by the County Medical Officer to the County Clerk :—

I enclose herewith two communications received from Clyde Paper Company, Ltd., Rutherglen, dated 3rd and 6th instant, with regard to pollution of the River Clyde at their works. These communications were acknowledged by me stating that we were giving the matter our closest attention. Since the complaints were made very exhaustive enquiries have been carried out by the Rivers Inspector and samples taken for analyses. From the investigations made, the source of pollution complained of is apparently the Battles Burn, and from the chemical analyses it is evident that the pollution is entirely due to the discharge of acid iron liquors from Tollcross Tube Works. The quantity of acid liquor discharged under certain conditions is sufficiently great to render all the water in the Battles Burn acid. In this acid condition the iron is held in solution, and is not precipitated until it reaches the Clyde, where there is sufficient alkalinity for this purpose.

You will no doubt consider it desirable to take the matter up with Messrs. Stewarts & Lloyds, owners of the Tollcross Tube Works.

The matter was, therefore, taken up as suggested, and in reply to a communication from the County Clerk, which asked for an assurance that whatever purification measures might be necessary to remove the cause of complaint would be adopted, the firm stated that there had been no alteration in the working conditions at their works during the past fourteen years, and no increase in the discharge of their waste iron liquors. They also stated that from consideration of analysis of samples taken by them the composition of the river water was practically unchanged by the waste waters discharged from the Battles Burn, and that any free acid was immediately neutralised by admixture with other waste water from their works, and further, that although the Battles Burn carried a little ferric hydrate in suspension, there was no trace of this suspended matter in samples of the river water taken a short distance below the Battles Burn. They also further stated that, until hearing further from the County Clerk, they did not propose to make any alteration in their existing practice. In reply to these assertions, the County Medical Officer wrote to the County Clerk on 24th July in the following terms :—

Samples have been obtained by the Rivers Inspector, which did not differ greatly from these quoted, samples of water taken from the Battles Burn being frequently alkaline. However, on

14th June, samples taken by the Rivers Inspector from the Battles Burn at 6.10 a.m. and 11.15 a.m. were found to contain 186.0 and 69.0 parts per 100,000 of free sulphuric acid respectively. The effluent discharged from Tollcross Tube Works at 5 a.m. on 14th June contained 828.0 parts per 100,000 of free sulphuric acid and 1,279.6 parts per 100,000 of iron. During the period of such a discharge the question of alkalinity or acidity in the burn water is entirely dependent on the relation of the volume of water to the volume of effluent, and will vary accordingly. In addition to acid there is iron, and, whether acid or alkaline, this iron had to be precipitated, causing suspended solids in both the Battles Burn and River Clyde.

On this information being conveyed to Messrs. Stewarts & Lloyds for their consideration and observations, they asked for an interview with a representative of the County Council to further discuss the matter, and the County Chemist had a meeting with the works' management on 28th November, as to which, on 11th December, the County Medical Officer communicated with the County Clerk as follows:—

I duly received yours of 18th ultimo, enclosing copy letter from Messrs. Stewarts & Lloyds, Ltd., Tollcross Works, Tollcross, regarding the discharge of waste liquors into the Battles Burn, and suggesting an interview with their representatives to discuss the matter. I therefore arranged for an interview with the County Chemist (Mr. Brown), and the Manager (Mr. Wingate), and the Office Manager (Mr. Wilson), of Messrs. Stewarts & Lloyds, Ltd., on Friday, 28th ultimo. The County Chemist's report regarding this interview is as follows:—

“ Briefly, I find that while these gentlemen admit that they discharge at intervals a considerable quantity of acid iron pickle liquor, they do not admit that this has any effect on the River Clyde, and, having regard to the fact that this liquor has been discharged for 14 years without complaint, also to the present industrial depression, they do not feel inclined, on account of cost, to do anything in the way of adopting remedial measures. Mr. Wingate, who was formerly a Chemist with Tatlock & Thomson, is aware of what is required to treat this liquor, and pointed out that mixing tanks for mixing the neutralising agent (milk of lime) would be required, also settling tanks, and finally some means of sludge disposal; and enquired as to whether the Local Authority would admit this sludge to their coup in the event of this treatment being adopted later on.

“ On our behalf, I suggested that instead of settling tanks, which would involve considerable capital expenditure, they should consider some form of filter pressing, but this would also leave the sludge to be disposed of. There is no waste ground available for this purpose.

“The question of admitting this acid liquor to the main sewer close at hand was also raised, but I pointed out that owing to its acid nature and to the fact that bacteria would not live in such a medium, this question could not be considered for a minute.”

It is evident that while they admit this discharge of acid iron liquor to the Battles Burn they hold that the quantity of rolling-mill water also discharged from their works to be quite sufficient to neutralise any acid and to precipitate the iron, and that when this precipitated iron enters the Clyde it is immediately dispersed in the large volume of water and is not sufficiently great to do any harm to the Paper Mill or other work.

Owing to the large volume of water in the Clyde during the winter months, there is presently no cause for complaint, and no further complaints have been received from the Clyde Paper Company, Ltd. You will probably, therefore, not consider it desirable to press Messrs. Stewart & Lloyds, Ltd., for remedial measures meantime, but in the event of further pollution, the whole question would require to be raised again.

*River Nethan at Lesmahagow.*—A complaint was received on 29th June that large numbers of dead trout had been found in the River Nethan as it flows through or by the lands of Auchtyfardle and Kerse. Full inquiries were made into the complaint and the condition of the river and its sources of pollution specially noted, stream and effluent samples being also taken for analysis. The Rivers Inspector's report on the matter, which was forwarded to the County Clerk, summarised the results of his investigations in the following terms:—

- (1) A very large number of dead trout was found in the River Nethan as it flows through Kerse Estate. These were first observed on the night of 5th June. Six dead trout were taken from the river near Kerse Mansion House on 9th June.
- (2) On account of the long period of dry weather, the flow of water in the river has been very low for some time.
- (3) The river above the outfall conveying discharges from Lesmahagow Creamery was free from pollution. I observed fish rising there.
- (4) The discharge from the Creamery outfall shortly after mid-day was grossly polluting, and there was accumulated evidence in the stream at this outfall and above Craighead Mill dam of previous gross pollution.

- (5) The effluent discharged by the sewage purification works outfall, although containing no crude sewage, was of a polluting nature, and there was an offensive odour at the outfall, and from the river in its vicinity. The discharge was flowing on to the almost dry bed of the river.
- (6) The river for a long distance below Craighead Mill, through or by Auchtyfardle and Kerse lands, was very seriously polluted by the discharges from Lesmahagow Creamery and the sewage purification works, and there was evidence that a state of serious pollution had existed for some time.
- (7) No other evidence of pollution which might have caused such wholesale destruction of fish was obtained.

Complaint was also made about a month later by the occupier of Auchtyfardle House as to sewage pollution of the river and nuisance arising therefrom. It is understood that measures have been taken to dispose of the whey produced at the Creamery without discharging any to the Nethan, and, as will have been previously noted, Lesmahagow is included in the list of areas in which drainage or sewage disposal works are to be carried out.

*Scion Burn, Rutherglen.*—Numerous complaints were made in the early summer as to sewage pollution of this small stream and alleged nuisance arising therefrom at places where it runs as an open water-course (1) in the County area at Blairbeth Road, Burnside; (2) in the vicinity of the east end of Highbury and Viewpark Drives, at Stonelaw Woods and at Woodburn Park, all in the Burgh of Rutherglen; and (3) in the County area at Ballochmill Road, Eastfield. Inquiries and Inspections were made into these complaints, which had been previously made with regard to the Burnside and Burgh areas mentioned, and a report submitted with special reference to the application of temporary remedial measures.

A further complaint was made to the Department of Health in the month of October by the occupier of a house in Blairbeth Road, Burnside. The burn at this part had been piped in by the builder of new property there, and only a few yards of it are now open. This open part is within the L.M.S. Railway fence, and the complainer's garden reaches to it, and he complained of nuisance arising therefrom. With a view to temporarily remedying cause for complaint, the open portion of the burn and the culvert underneath the railway



were cleaned out by the Railway Company, and a portion of the culvert within the Burgh of Rutherglen was cleaned out by the Burgh Authorities. Inspections made during December showed that the open portion of the burn was in a silted-up condition, but that it was running freely and did not then appear to be a source of nuisance. As is well known, the source of pollution is the housing scheme at Fishescoates, Cambuslang Parish, for which proper sewage disposal arrangements, although contemplated, have not yet been provided, and until this is done and the sewage diverted from the water-course, cause for complaint will continue.

*Shotts Burn, Salsburgh.*—A complaint was received towards the end of June from the proprietor of Longacre Farm, as to alleged poisoning of his cattle through drinking the sewage polluted water of the Shotts Burn. This complaint was inquired into and a report thereon forwarded to the County Clerk. A further complaint was made in December by the same proprietor, and the Drainage Committee appointed a sub-committee to go into the matter and submit a report.

*South Calder Water.*—In the course of inspections made of the South Calder Water and the Stane sewage outfall by the County Medical Officer in connection with the report on the question of drainage and sewage disposal before referred to, the stream was observed to be slightly polluted by ammoniacal liquor from Shotts Gas Works. There was also a large amount of household refuse (tin cans and such like) in the stream which had come from a coup near the gas works. Complaint was made with regard to the ammoniacal liquor pollution and remedial measures were effected. The stream was also cleaned out.

*Stewart Gill, Dalserf Parish.*—Further complaint was made as to alleged sewage pollution of this small stream and nuisance arising therefrom, due to the discharge of sewage effluent from the sewage purification works (a tank and sludge pits) for the Ashgillhead Housing Scheme, and an action of interdict against the County Council threatened in respect thereof. A claim for compensation for personal and other injury and damage which the complainer and his tenants were alleged to have suffered was also made. The matter was the subject of exhaustive inquiry, especially during the months of August and September, and also the introduction of certain remedial measures with a view to removing cause for complaint of nuisance.

A Special Drainage District for the Ashgillhead area was formed on 28th March last, and the construction of a second tank and the addition of filters commenced on 22nd July.

*Tillan Burn*.—Further complaints were received with regard to pollution of this burn from the tenant of Whitecraighead Farm, Cleland, who alleged that the health of his stock has seriously suffered as a result of sewage pollution of their water supply. He has also made a claim for damage in respect thereof, and on 7th June a communication was forwarded to the County Clerk acquainting him of the action taken since complaint was made in 1928. On consideration of reports on the matter, including one by the Veterinary Inspector, the County Council Committee concerned agreed to deny all liability.



## Food and Drugs.

*Senior Inspector and Sampling Officer,*      -      CHAS. MACARA.

The work under the Food and Drugs (Adulteration) Act and relative Orders has been carried out by two inspectors this year. The filling of the vacancy of junior assistant was kept in suspension for a year. The following table shows the yearly average number of inspections, administrative samples taken and analysed, with the percentage found deficient, the yearly average samples taken for special purposes for the six quinquennial periods from 1900-1929, and the annual figures for the year 1930:—

### Administrative Samples.

Years.	Inspections.	Procured.	Analysed.	Percentage Deficient.	Special Samples.
1900-04, -	616	338	316	11·27	—
1905-09, -	828	487	480	12·64	—
1910-14, -	789	574	558	12·16	573
1915-19, -	373	340	326	12·96	14
1920-24, -	804	653	647	8·11	107
1925-29, -	1,976	1,623	1,608	9·76	1,006
1930, -	2,253	1,984	1,967	9·90	781

The following tabular statement shows the work carried out in the three districts of the County, and the Burghs of Biggar and Lanark, and the manner in which the samples were procured, &c. :—

District.	Inspections made.	Samples procured.*				Analysed.	
		Formal.	Informal.	Received Privately.	Total.	Public Analyst.	Chemical Laboratory.
Upper Ward, -	340	33	276	3	312	33	278
Middle Ward, -	1,493	102	1,219	15	1,336	102	1,218
Lower Ward, -	252	26	159	—	185	26	159
Burgh of Biggar, -	42	5	30	—	35	5	30
Burgh of Lanark, -	126	17	99	—	116	17	99
Total, -	2,253	183	1,783	18	1,984	183	1,784

17 samples were not analysed.

\* In addition 781 samples were procured for purposes of investigation.

The following table shows the nature and number of samples purchased and received, the number analysed, and the number found deficient :—

Article.	Procured.	Analysed.	Deficient or Adulterated.
Sweet Milk, - - - -	1,253	1,253	110
Cream, - - - -	5	5	—
Skimmed Milk, - - - -	3	3	—
Condensed Milk, - - - -	20	20	—
Butter, - - - -	53	53	9
Cheese, - - - -	4	4	—
Margarine, - - - -	4	4	—
Lard, - - - -	1	—	—
Dripping, - - - -	1	—	—
Whisky, - - - -	45	45	1
Port Wine, - - - -	4	4	—
Fruit Cordials, - - - -	3	3	—
Mince, - - - -	429	429	61
Pie Meat, - - - -	2	2	1
Sausage Meat, - - - -	29	29	13
Sausages, - - - -	22	22	—
Sauce, - - - -	5	5	—
Ham and Bacon, - - - -	20	20	—
Black Pudding, - - - -	1	1	—
Coffee and Chicory, - - - -	1	—	—
Coffee, - - - -	2	2	—
Cocoa, - - - -	1	—	—
Tea, - - - -	3	—	—
Tomato Sauce, - - - -	2	2	—
Tinned Tomatoes, - - - -	2	2	—
Tinned Grape Fruit, - - - -	1	1	—
Preserved Peas, - - - -	1	1	—
Glacé Cherries, - - - -	4	4	—
Lemon Curd, - - - -	2	2	—
Jelly, - - - -	3	3	—
Gelatine, - - - -	1	1	—
Sugar, - - - -	4	4	—
Clear Mints, - - - -	1	1	—
Flour, - - - -	4	4	—
Baking Soda, - - - -	1	—	—
Rice - - - -	13	12	—
Semolina, - - - -	1	—	—
Custard - - - -	1	—	—
Barley, - - - -	2	2	—
Cream of Tartar, - - - -	5	5	—
Pepper, - - - -	1	1	—
Cakes, - - - -	2	2	—
Cream Cookies, - - - -	1	1	—
<i>Forward,</i>	1,963	1,952	195

Article	Procured.	Analysed.	Deficient or Adulterated.
<i>Forward,</i>	1,963	1,952	195
Chocolate, - - - -	1	1	—
Golden Syrup, - - - -	1	1	—
Apples, - - - -	1	1	—
Eggs, - - - -	5	—	—
Malt Vinegar, - - - -	2	2	—
Olive Oil, - - - -	1	1	—
Eucalyptus Oil, - - - -	1	1	—
Camphorated Oil, - - - -	1	1	—
Seidlitz Powder, - - - -	3	3	—
Zinc Ointment, - - - -	1	1	—
Turpentine, - - - -	1	1	—
Tincture of Iodine, - - - -	2	2	—
Borax, - - - -	1	—	—
	<hr/> 1,984	<hr/> 1,967	<hr/> 195

36 of the deficient samples were taken formally, and 159 informally. With regard to the formal non-genuine samples, informations were lodged with the County Clerk. The vendors from whom the informal samples were procured were kept under supervision and formal samples taken.

The following table shows the formal non-genuine samples dealt with during the year, and the action taken in each case:—

Reg. No.	Article.	Date Procured.	Action Taken.
316	Mince,	22nd Nov., 1929,	Pled guilty at Lanark, 7th January, 1930. Fined £1.
318	Mince,	25th Nov., „	Pled guilty at Hamilton, 10th January, 1930. Fined £2.
320	Mince,	26th Nov., „	Pled guilty at Hamilton, 10th January, 1930. Fined £3.
324	Mince,	26th Nov., „	Pled guilty at Airdrie, 14th January, 1930. Fined £2.
333	Whisky,	29th Nov., „	Pled guilty at Airdrie, 14th January, 1930. Fined £5.
350	Mince,	19th Dec., „	Pled guilty at Airdrie, 4th February, 1930. Fined £2.
351	Mince,	19th Dec., „	Pled guilty at Hamilton, 31st January, 1930. Fined £3.
352	Mince,	19th Dec., „	Pled guilty at Hamilton, 31st January, 1930. Fined £3.
359	Whisky,	26th Dec., „	Pled guilty at Hamilton, 7th February, 1930. Fined £5.
367	Whisky,	31st Dec., „	Pled guilty at Hamilton, 7th February, 1930. Fined £5.
9	Sweet Milk,	10th Jan., 1930,	Proof at Lanark, 20th March, 1930. Not guilty.
12	Sweet Milk.	10th Jan., „	Owing to smallness of deficiency no action taken.
23	Sweet Milk,	10th Jan., „	Proof at Lanark, 20th March, 1930. Not guilty.
26	Mince,	13th Jan., „	Pled guilty at Hamilton, 14th February, 1930. Fined £5.

Reg No	Article	Date Procured.	Action Taken.
27	Mince,	15th Jan., 1930,	Pled guilty at Hamilton, 14th February, 1930. Fined £2.
39	Sweet Milk,	31st Jan., „	As a result of "Appeal to Cows" no legal proceedings were taken.
45	Mince,	24th Feb., „	Pled guilty at Airdrie, 28th March, 1930. Fined £2.
46	Mince,	25th Feb., „	Pled guilty at Lanark, 25th March, 1930. Fined £1.
50	Mince,	28th March. „	Pled guilty at Airdrie, 13th May, 1930. Fined £1.
53	Sausage Meat,	4th April, „	Pled guilty at Glasgow, 18th June, 1930. Fined £1 10s.
60	Mince,	11th April, „	Proof at Airdrie, 10th June, 1930. Fined £2.
62	Mince,	11th April, „	Pled guilty at Airdrie, 30th May, 1930. Fined £2.
67	Sausage Meat,	17th April, „	Pled guilty at Lanark, 23rd May, 1930. Fined £2.
75	Mince,	5th May, „	Pled guilty at Hamilton, 20th May, 1930. Fined £2.
76 & 77	Sweet Milk,	5th May, „	Owing to smallness of deficiency a written caution was sent by County Clerk.
91	Sweet Milk,	23rd May, „	Pled guilty at Hamilton, 4th July, 1930. Fined £5.
94 & 95	Mince,	28th May, „	Pled guilty at Hamilton, 11th July, 1930. Fined £1.
108	Sweet Milk,	25th June, „	Proof at Lanark, 14th October, 1930. Not proven.
201	Sweet Milk,	9th July, „	As samples taken from the producer were just on the standard, a written caution was sent by the County Clerk.
114	Sweet Milk,	15th July, „	Pled guilty at Hamilton, 15th September, 1930. Fined £3.
116	Sweet Milk,	25th July, „	Written caution sent by County Clerk.
128	Sweet Milk,	13th Aug., „	Pled guilty at Glasgow, 1st December, 1930. Fined £3.
150	Sausage Meat,	1st Sept., „	Pled guilty at Hamilton, 3rd October, 1930. Fined £3.
170	Mince,	23rd Sept., „	Pled guilty at Glasgow, 31st October, 1930. Fined £1.
176	Mince,	30th Sept., „	Pled guilty at Airdrie, 21st Nov., 1930. Fined £1 10s.
177	Whisky,	2nd Oct., „	Pled guilty at Lanark, 11th November, 1930. Fined £5.
188	Mince,	20th Oct., „	Pled guilty at Lanark, 28th Nov., 1930. Fined £1 10s.
189	Sausage Meat,	20th Oct., „	Pled guilty at Lanark, 28th Nov., 1930. Fined £1 10s.
—	Sale of Food Order,	21st Oct., „	Proceedings pending.
208	Sweet Milk,	27th Nov., „	Proceedings pending.
218	Whisky,	23rd Dec., „	Proceedings pending.
219	Whisky,	24th Dec., „	Proceedings pending.

*Sweet Milk.*—The following tables show the samples of sweet milk analysed during the year, classified according to percentage of milk fat and of milk solids other than milk fat which they contained, and according to the nature of the business carried on by the vendors, viz., producer-wholesalers, producer-retailers, and retailers:—

SAMPLES CLASSIFIED ACCORDING TO PERCENTAGE OF MILK FAT.

PRESUMPTIVE STANDARD = 3 PER CENT.

Milk Fat Percentage.	NUMBER OF SAMPLES.			
	Producer- Wholesalers.	Producer- Retailers.	Retailers.	Total.
1·6	—	1	—	1
1·7	—	2	—	2
2·2	2	—	1	3
2·3	1	—	—	1
2·4	—	1	1	2
2·5	—	5	1	6
2·6	1	5	4	10
2·7	—	6	2	8
2·8	1	8	5	14
2·9	2	11	6	19
3·0	4	17	14	35
3·1	4	18	10	32
3·2	2	25	17	44
3·3	2	30	38	70
3·4	10	52	46	108
3·5	5	42	49	96
3·6	14	44	73	131
3·7	16	47	74	137
3·8	8	45	58	111
3·9	14	47	40	101
4·0	7	43	34	84
4·1	6	23	37	66
4·2	1	26	29	56
4·3	4	16	11	31
4·4	1	18	6	25
4·5	1	31	28	60
and over				
Total,	106	563	584	1,253

SAMPLES CLASSIFIED ACCORDING TO PERCENTAGE OF MILK SOLIDS OTHER  
THAN MILK FAT.

PRESUMPTIVE STANDARD = 8.5 PER CENT.

Non-fatty Solids Percentage.	NUMBER OF SAMPLES.			
	Producer- Wholesalers.	Producer- Retailers.	Retailers.	Total.
5.6	2	—	—	2
6.3	1	—	—	1
6.5	1	—	—	1
7.3	—	2	—	2
7.4	2	—	—	2
7.5	2	—	—	2
7.6	2	1	2	5
7.7	1	—	—	1
7.8	1	—	1	2
7.9	—	2	—	2
8.0	—	1	2	3
8.1	2	—	3	5
8.2	1	2	3	6
8.3	2	2	7	11
8.4	3	8	8	19
8.5	8	18	24	50
8.6	12	34	41	87
8.7	4	61	58	123
8.8	6	83	84	173
8.9	12	91	82	185
9.0	17	95	104	216
9.1	12	71	77	160
9.2	10	50	44	104
9.3	4	23	28	55
9.4	1	13	8	22
9.5	—	5	8	13
and over				
Total,	106	562*	584	1,252

\*One sample milk fat percentage only given.

*Sweet Milk.*—1,253 formal and informal samples were procured, and in addition 781 samples were obtained in connection with special investigations. The procedure adopted is to procure informal samples for analysis in the Chemical Laboratory, and any samples found not genuine are followed up by the taking of formal samples from the



vendors concerned. When formal samples are procured from any vendor it is the practice to take informal samples at the same time. This is done so that the informal sample can be examined in the Chemical Laboratory and the results of analyses known on the same day. This early information is valuable for the purpose of further investigation. If the vendor is a retailer samples are taken in course of delivery to him, and if the vendor is a producer an "appeal to the cows" is made at the milkings immediately following. Thus, 781 samples were taken from individual cows of six herds concerned with deficient samples. In one case the investigation was carried on at thirteen consecutive milkings from a herd consisting of 20 cows, and in five cases herds comprising 15, 6, 12, 16, and 47 cows were sampled at consecutive morning and evening milkings. The cans filled up during the milkings were also sampled. An expert milker was present with the inspectors at each milking and tested the cows after milking to make sure that they had been properly "stripped."

*Skimmed Milk.*—3 samples of skimmed milk were procured. Analyses showed that these samples had a high milk fat content, and there is just the possibility that they would be sold to the public as sweet milk. 8 cases of failure to label the cans "Skimmed Milk" were detected.

*Butter.*—53 samples were procured and were all found to be genuine. At the routine inspection of shops strict attention was given to the detection of the fraudulent sale of margarine for butter. Numerous samples were procured by means of agents, but only one case of the sale of margarine for butter was detected. A formal sample, procured from the vendor concerned by means of an agent, turned out, however, on analysis, to be genuine.

*Whisky.*—45 samples of whisky were procured, 38 informal and 7 formal. 5 of the informal and 3 of the formal were certified to be not genuine. Successful legal action was taken in connection with the formal non-genuine samples.

*Tinned Tomatoes and Grape Fruit.*—2 samples of tinned tomatoes and 1 of grape fruit were procured. One of the samples of tinned tomatoes and the one of grape fruit were certified by the Public Analyst to contain .50 and 1.7 grains of tin per lb. The tin had probably been dissolved from the tin container, but the amounts were too small to warrant action being taken.

*Drugs.*—10 samples of drugs were procured, and were found on analysis to conform to the B.P. Standard.

## MARGARINE CONTRAVENTIONS.

4 contraventions were detected, consisting of—1 want of margarine wrapper and 3 cases of want of statutory labels. The case of want of wrapper occurred in connection with the sale of an informal sample of butter to an agent and two of the cases of want of statutory labels occurred in connection with two formal samples procured, one from a shop and another from a motor van. Successful legal proceedings were instituted in connection with one of the latter cases, and in the other one it was deemed that a written caution by the County Clerk would meet the case.

## BACTERIOLOGICAL EXAMINATION OF MILK.

435 inspections were made, and 513 samples of graded milk taken and submitted for bacteriological and chemical examination in the County Laboratories. 221 samples of Grade A (T.T.) milk and Grade A (T.T.) pasteurised milk were taken from supplies delivered at schools situated in populous places in the County of Lanark. The milk was delivered in connection with an experiment by the Department of Health for Scotland, whereby children at the various schools received a ration of  $\frac{3}{4}$  pint graded milk, with a view to finding out the benefit from a health point of view on the children receiving the milk. 53 of the informal samples of ordinary milk procured by the Food and Drugs Inspector and 308 procured by the Middle Ward Sanitary Inspectors were examined in the Bacteriological Laboratory with regard to the cleanliness or otherwise of the milk as supplied to the consumers. About 18 per cent. of the samples were found to be dirty. These unsatisfactory samples were dealt with by the local Sanitary Inspector visiting the farm of the producer, with a view to correcting any faults in the manner of milking and handling the milk.

In connection with the sale of pasteurised milk 4 samples were procured as Pasteurised Milk, and informations were lodged against the vendors concerned under the Milk and Dairies (Amendment) Act, 1922, for failure to label pasteurised milk as such. Three of the cases came before the Court and convictions were obtained in two of them, while with regard to the third, it was agreed to drop the case on evidence that the offence had occurred through the carelessness of a servant. In connection with a case which occurred last year of a vendor contravening the terms of his licence by selling

ordinary milk as Grade A (T.T.) and advertising Grade A milk on his motor van, the Sheriff disposed of the case by warning the dairyman that he must conform to the conditions of his licence. Further inspection showed that he had removed the advertisement from his cart. A sample was procured as tuberculin-tested milk from a vendor who advertised on his retail cart the sale of "Safest Milk—Tuberculin Tested." As the use of this designation for the sale of milk, which in reality was ordinary milk, would tend to defeat the spirit of the Milk (Special Designations) Order, an information was lodged with the County Clerk.

#### PUBLIC HEALTH (CONDENSED MILK) AND (DRIED MILK) REGULATIONS.

20 samples were taken, and on analysis were found to conform to the terms of the Regulations.

#### SALE OF FOOD ORDER.

5 contraventions of the Order were detected, viz., failure to label imported meat for sale in butchers' shops. Successful legal proceedings were instituted in one case. Verbal cautions were given in all the others. During the period under review, the vans belonging to two large firms of butchers were inspected with a view to finding whether they had acted upon verbal cautions previously given regarding the labelling of imported meat. It was found in both cases that the firms had ceased dealing with imported meat, the reason given being that the observance of the law with regard to the labelling of imported meat would have a deleterious effect on their trade.

#### PUBLIC HEALTH (PRESERVATIVES, &C., IN FOOD) REGULATIONS (SCOTLAND), 1925.

All the articles which are affected by the above regulations were analysed for the presence of preservatives. In procuring samples of mince, sausages, and sausage meat, &c., the procedure adopted is to procure informal samples for examination in the Chemical Laboratory in the first instance, and follow up any non-genuine samples afterwards by the purchase of formal samples for analysis by the Public Analyst. As will be seen from the table of samples purchased and analysed, 61 samples of mince, 13 of sausage meat, and 1 pie meat were found to be not genuine, in respect that they contained preservative prohibited by the regulations.

8 contraventions of failure to exhibit the notices required regarding preservatives in sausages and sausage meat under the regulations were detected. Verbal cautions were given and the vendors kept under supervision.

EXAMINATION OF FOODSTUFFS AS SUPPLIED TO INSTITUTIONS  
BELONGING TO THE COUNTY OF LANARK.

Inspections were made during the period under review at the various Institutions throughout the County, and 51 samples taken of the grocery goods and butcher meat supplied by the various contractors under schedule.

## Fertilisers and Feeding Stuffs Act, 1926.

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The simplification of the procedure under the above Act, in order to encourage farmers to have samples of fertilisers and feeding stuffs taken by the official samplers for analysis, has not resulted in farmers making any more use of the statute than they formally did under the old Act, with all its restrictive formalities.

8 inspections were made, and 12 samples of fertilisers procured—11 on request of a Farmers' Trading Association, and 1 from an individual farmer. Sampling under the Act is carried out by the Food and Drugs Inspectors.

The following table shows the number of samples obtained and the number found deficient :—

Fertilisers.				Feeding Stuffs.		
Name.	Obtained.	Deficient.		Name.	Obtained.	Deficient.
Ground Mineral Phosphates, - - -	2	1				
Calcium of Cyanamide, 1		—				
Sulphate of Ammonia, 1		1				
Basic Slag, - - -	2	—				
Kainit, - - -	1	—			Nil.	
Potash Salts, - - -	1	—				
Nitro Chalk, - - -	1	—				
Bone Meal, - - -	1	1				
Corn and Grass Manure, - - -	1	—				
Superphosphate, - - -	1	—				
Total,	12	3				

The Agricultural Analyst reported 1 sample of Ground Mineral phosphate to be .20 per cent. deficient in Phosphoric Acid, 1 Sulphate of Ammonia to be .03 per cent. deficient in Nitrogen, and 1 Bone Meal to be 1.74 per cent. deficient in Phosphoric Acid as compared with the guaranteed analyses. All the deficiencies were within the limits of variation laid down by the Act. Copies of the certificates were sent by the Agricultural Analyst to the parties concerned.

## Shops Acts, 1912-1921.

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The work under the above Acts has been carried out by the Food and Drugs Inspectors on the same lines as in previous years, with a view to assisting shopkeepers and their assistants to obtain the benefit of better working conditions conferred on them by the statute. Legal proceedings against offenders are only instituted as a last resort where cautions have not been effective in putting a stop to infringement of the terms of the statute. In the main, offenders are generally small shopkeepers and itinerant hawkers. Table D shows the number of inspections to localities, visits to shops, and contraventions detected under the Act for the three Wards of the County. There were 41 contraventions. These consisted of 6 cases of failure to close at the time fixed on weekly half-holidays and under Closing Orders; 2 cases of street trading; and 33 failures to exhibit notices in terms of the Act.

The following statutory notices were issued to shopkeepers:—

Shop assistants' weekly half-holiday, ... ..	63
Mixed shops for exempted goods, ... ..	37

The following paragraphs give further particulars regarding inspections made in connection with the administration of the Acts and the irregularities detected:—

*Shops Weekly Half-Holiday.*—The Weekly Half-Holiday Orders operative in the County area apply to (1) the Middle Ward; (2) the Parish of Carluke; (3) the Baillieston and District Butchers' Order; and (4) the Lower Ward Butchers' Order. By these Orders, Wednesday is fixed as the day of the weekly half-holiday. In all the other areas of the County the shopkeepers arrange amongst themselves with regard to the day which they choose for the closing of their



premises in the afternoon, and intimate such arrangement by means of a notice exhibited on their premises. 28 localities were visited on the day fixed for the weekly half-holiday, and generally speaking, the closing of shops at 1 p.m. was very well observed. 41 contraventions were detected, consisting of 2 cases of street trading, 6 cases of failure to close promptly, and 33 cases of failure to exhibit the statutory notices. Verbal cautions were given with regard to all contraventions in the first instance. In one of the cases of street trading an information was lodged with the County Clerk.

*Early Closing of Shops in the Evening.*—The following Early Closing Orders are in operation within the County:—(1) General Closing Order for all shops in the Parish of Cambuslang; (2) Butchers' and Grocers' Early Closing Order in Blantyre; (3) Butchers' Early Closing Order in Baillieston and District; (4) Butchers' Early Closing Order in the Lower Ward; and (5) Barbers' and Hairdressers' Early Closing Order applicable to the Special Lighting Districts of Aitkenhead and Tannochside, Bellshill and Mossend, Blantyre, Bothwell, Cambuslang, and Uddingston.

Six evening inspections were made in connection with the closing of shops under the Closing Orders and Act relating to the general closing hours. Eight contraventions were detected. Six of these consisted of want of promptness in closing the shop door at the hour fixed, and two cases of failure to exhibit statutory notices in "mixed" shops after the closing hour for grocers. The shopkeepers concerned were verbally cautioned, and kept under observation.

*Street Trading.*—During the routine inspection on the weekly half-holiday two cases of street trading were detected.

*Assistants' Weekly Half-Holiday.*—At all inspections made, special attention is given to the provisions of the Act with regard to the assistants' half-holiday. No contraventions were detected.

*Over-Employment of Young Persons Under 18 Years of Age.*—Attention is always paid to this provision of the Act, but no contraventions were detected.

*Communications.*—Many special visits were made as a result of communications received from traders requesting information regarding the provisions of the Act.

TABLE D.—SHOWING INSPECTIONS, VISITS TO SHOPS, &c., AND CONTRAVENTIONS IN THE THREE WARDS OF THE COUNTY, 1929.

Inspections and Contraventions.	Upper Ward.	Middle Ward.	Lower Ward.	Total for County.
Inspections to Localities, - -	1	28	3	32
Visits to Shops, &c., - - -	16	145	17	178
<hr/>				
Contraventions—				
Failure to close: Weekly Half-holiday and under Closing Orders, - - - -	—	6	—	6
Sale of non-exempted goods, -	—	—	—	—
Street Trading, - - - -	—	2	—	2
Failure to give assistants weekly half-holiday at 1.30 p.m., -	—	—	—	—
Failure to give assistants proper intervals for meals, - - -	—	—	—	—
Failure to provide seats for female assistants, - - - -	—	—	—	—
Employing young persons under 18 years more than 74 hours per week, - - - -	—	—	—	—
Failure to exhibit notices in terms of Act, - - - -	—	33	—	33
	—	41	—	41
	<hr/>			

### By-Laws Regulating Places for Public Refreshment.

Ten inspections were made in connection with applications from the occupiers of registered premises for permission to make structural alterations so as to permit of a carrying-out trade after the hours prescribed by the By-laws, viz., 11 p.m. on week-days and 8 p.m. on Sundays. Reports dealing fully with each application were sent to the County Clerk.

COUNTY OF LANARK

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DISTRICT OF THE UPPER WARD.

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# REPORT

OF THE

MEDICAL OFFICER OF HEALTH

1930

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Medical Officer of Health,	-	} County Offices, Hamilton.
Asst. Medical Officer of Health,	-	
Sanitary Inspector,	- -	

*STAFF.*

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**Medical Officer of Health.**

J. HUME PATTERSON, F.R.F.P.S.(G.), D.P.H.

---

**Asst. M.O.H. and Tuberculosis Officer.**

ALEXANDER FRASER, M.D., D.P.H.  
(Resigned).

---

**Sanitary Inspector.**

WILLIAM PATERSON.

---

**Asst. Sanitary Inspectors.**

JOHN INNES  
(Certificated Meat Inspector).  
ROBERT FRASER.  
(Resigned Oct. 31.)

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**Nurse Health Visitors, 3.**

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**District Hospital, Roadmeetings, Carlisle.**

Resident Physician,	-	-	-	-	Dr. EFFIE S. STEPHEN.
Matron,	-	-	-	-	Miss I. RAMSAY.

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**Meat Inspector.**

JOHN JARVIE, M.R.C.V.S.

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**Slaughter-house Superintendents, 4.**

## COUNTY OF LANARK

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### DISTRICT OF THE UPPER WARD

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# Report by the Medical Officer of Health

FOR THE YEAR 1930.

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### VITAL STATISTICS.

The area of the Upper Ward District is 326,803 acres and remains unchanged.

The **Population** of the district for the year 1930 has been estimated to be 49,000, an increase of 500 compared with the population of the previous year. The density of the population was 0·15 persons to the acre.

The number of inhabited houses in the district according to the Valuation Roll was 10,361, an increase of 101 compared with the year 1929. The number of uninhabited houses according to the Roll was 277, compared with 351 the previous year.

**STATISTICAL TABLES.**—Table A shows the birth and death-rates per thousand of the population and the infantile mortality rate per thousand births. Table B shows the population, births, and deaths for the year in each parish and registration district, with the deaths classified according to cause. Table C shows the deaths classified according to cause and age periods.

The **Births** registered in the district, after correction for transfers, numbered **808**—males, 449; females, 359; of which 71—males, 47; females, 24—were illegitimate, being 8·7 per cent of the births. The birth-rate per 1,000 of the population was **16·5**, which is the lowest rate ever recorded in the district. The birth-rate of the previous year, 17·4, was stated at that time to be the lowest recorded, and a perusal of the undernoted table shows the steady decline of the birth-rate.

The **Deaths** during the year 1930 numbered, after correction for transfers, **486**, compared with 531 in the previous year. The death-rate for this year is **9·9** per thousand of the population, as compared with 10·9 for the year 1929.

The deaths of *infants under 1 year* numbered **49**, giving an infant mortality rate of **60·6** per 1,000 births. A definite decrease in the number of infant deaths is noted when compared with the previous year's figure of 64. These deaths are referred to in detail in the portion of the report dealing with Maternity and Child Welfare.

The number of births exceeded the deaths by 332, constituting the natural increase of the population.

TABLE A.—BIRTH-RATES AND DEATH-RATES PER 1,000 OF THE POPULATION. INFANTILE DEATHS PER 1,000 BIRTHS.

Year.	Births.	Birth-rate.	Net Deaths.	Death-rate.	Infants under 1 year.	
					Deaths.	Death-rate.
Average. 1891 to 1900	1,222	31·6	606	15·6	116	95·5
Average. 1901 to 1910	1,209	28·9	552	13·2	104	86·5
Average. 1911 to 1920	1,143	25·9	561	12·73	91	80·23
1921	1,225	26·23	541	11·58	76	62·04
1922	1,097	23·40	584	12·45	101	92·06
1923	1,144	23·9	512	10·7	74	64·6
1924	1,119	23·1	581	12·0	86	76·7
1925	1,041	21·5	488	10·1	67	64·3
1926	999	20·7	498	10·3	52	52
1927	920	19·2	522	10·8	64	69·5
1928	888	18·5	517	10·8	61	68·7
1929	845	17·4	531	10·9	64	75·7
1930	808	16·5	486	9·9	49	60·6









TABLE C.—UPPER WARD.—Year 1930.—Deaths classified according to Cause and Age Periods.

CAUSE OF DEATH.	Registered in District.	Transferred from other Districts.	Transferred to other Districts.	Nett Deaths.	NETT DEATHS AT DIFFERENT AGE PERIODS.																		
					Weeks.				Months.				Years.										
					-1	1-2	2-3	3-4	1-3	3-6	6-9	9-12	1-	5-	10-	15-	25-	35-	45-	55-	65-	75-	
Typhoid Fever, - - - -	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Smallpox, - - - -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles, - - - -	3	...	1	2	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...
Scarlet Fever, - - - -	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Whooping-Cough, - - - -	3	...	...	3	...	...	...	...	...	1	...	...	1	1	...	...	...	...	...	...	...	...	...
Diphtheria, - - - -	4	...	1	3	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...
Influenza, - - - -	6	...	...	6	...	...	...	...	...	...	1	...	1	...	...	...	2	...	...	...	...	...	2
Cerebro-Spinal Fever, - - - -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Erysipelas, - - - -	1	...	...	1	...	...	...	...	...	...	...	...	1	...	...	2	5	7	2	2	...	...	...
Pulmonary Tuberculosis, - - - -	18	5	4	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Meningeal " - - - -	2	...	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	1	...	...	...
Abdominal " - - - -	2	2	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other " - - - -	2	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...
Septicæmia and Pyæmia, - - - -	3	3	1	5	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	2	...	...
Rheumatic Fever, - - - -	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Malignant Diseases, - - - -	46	15	1	60	...	...	...	...	...	1	...	...	...	...	...	...	2	4	7	14	16	16	16
Meningitis (simple), - - - -	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Cerebral Hæmorrhage, - - - -	43	1	1	43	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	6	21	15	...
Encephalitis Lethargica, - - - -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Nervous Diseases, - - - -	13	3	3	13	...	...	...	...	...	...	...	...	2	1	...	1	...	1	1	3	1	3	...
Organic Heart Disease, - - - -	58	4	5	57	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Circulatory Diseases, - - - -	22	2	2	22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bronchitis, - - - -	25	...	2	23	...	...	...	...	...	1	1	...	1	3	1	...	...	...	1	...	8	7	...
Pneumonia (all forms), - - - -	32	5	3	34	...	1	...	1	2	...	3	1	4	...	1	2	2	1	2	5	6	3	...
Other Respiratory Diseases, - - - -	13	...	2	11	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	2	3	3	...
Diabetes, - - - -	5	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	1	1	...
Pernicious Anæmia - - - -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dis. of Ductless Glands, - - - -	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Appendicitis and Typhlitis, - - - -	2	4	...	6	...	...	...	...	...	...	...	...	...	3	...	1	1	...	...	...	1	...	...
Liver Diseases (not malig.), - - - -	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...
Other Digestive Diseases, - - - -	3	6	...	9	...	...	...	...	...	...	...	...	...	1	...	...	...	3	1	...	2	2	...
Nephritis and Bright's Disease, - - - -	17	1	1	17	...	...	...	...	...	...	...	...	...	...	...	1	...	2	2	5	6	1	...
Dis. of Gen.-urin system, - - - -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dis. of Female Gen. organs, - - - -	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Puerperal Sepsis, - - - -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Dis. & Acc. of Pregnancy, - - - -	1	2	...	3	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	...
Congenital Hydrocephalus, - - - -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" Heart, - - - -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" Malformations, - - - -	4	1	...	5	2	...	...	...	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Infantile Convulsions, - - - -	1	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa (under 2 years), - - - -	2	...	...	2	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
Premature Birth, - - - -	8	2	...	10	9	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth, - - - -	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, & Marasmus, - - - -	10	3	...	13	4	1	...	1	...	4	3	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis, - - - -	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation—Overlying, - - - -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets, - - - -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Dis. peculiar to early Infancy, - - - -	1	1	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis, - - - -	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Violence, - - - -	17	11	4	24	...	...	...	...	...	...	...	...	...	2	...	4	4	3	1	3	5	2	...
Suicide, - - - -	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...
Other Defined Diseases, - - - -	51	11	2	60	...	...	...	...	...	1	...	...	1	1	...	1	2	2	3	8	9	32	...
Ill-Defined Diseases, - - - -	6	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	1	3	...
Totals, - - - -	434	86	34	486	19	3	...	3	5	9	7	3	17	14	1	19	23	35	34	72	103	119	...





Deaths in relation to age and cause. Table C shows the deaths classified according to age and cause. The deaths are arranged here in recognised age periods, and the percentage proportion of deaths at each age period is given:—

Infant period,	-	-	Under 1 year,	-	-	49 deaths or 10·1°/.
Under school age,	-	-	1-5 years,	-	-	17 „ 3·5°/.
School age,	-	-	5-15 years,	-	-	15 „ 3·1°/.
Adolescent,	-	-	15-25 „	-	-	19 „ 3·9°/.
Early mature period.	-	-	25-45 „	-	-	58 „ 11·9°/.
Late „	„	-	45-65 „	-	-	107 „ 22·0°/.
Post „	„	-	65 years and upwards,	-	-	221 „ 45·5°/.

*Infectious Diseases.*—The number of deaths due to infectious diseases which are compulsorily notifiable was 67, a decrease of 7 from the previous year. This figure is made up as follows:—Scarlet fever, 1; diphtheria, 3; erysipelas, 1; tuberculosis, 27 (pulmonary, 19; abdominal, 4; meningeal, 1; other forms, 3); pneumonia (all forms), 34; typhoid fever, 1,

The deaths due to infectious disease not compulsorily notifiable numbered 7, as compared with 18 during the previous year, and were as follows:—Measles, 2; whooping-cough, 3; diarrhoea (under 2 years), 2.

*Respiratory Diseases.*—The deaths during the year (including pulmonary tuberculosis) numbered 93, being a decrease of 22 as compared with the figure of the previous year. These deaths are made up as follows:—Pneumonia (all forms), 34; bronchitis, 23; influenza, 6; pulmonary tuberculosis, 19; other respiratory diseases, 11. In comparison with last year's figures a marked decrease in the deaths from influenza is noted. The following statement shows the deaths from respiratory diseases according to months:—

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Pneumonia, -	6	4	7	4	6	1	1	—	1	1	2	1	34
Bronchitis, -	—	7	2	2	1	3	1	1	1	3	2	—	23
Influenza, -	—	2	1	—	—	—	1	—	—	—	1	1	6
Pulmonary Tuberculosis, -	—	3	1	1	1	—	5	2	1	1	2	2	19
Other Respiratory Diseases, -	2	2	1	1	—	1	—	1	2	—	1	—	11
	8	18	12	8	8	5	8	4	5	5	8	4	93

The age periods of these deaths are to be found in Table C.

The undernoted statistics shows the deaths and the death-rates per 1,000 of the population for the last ten years.

Year.	Pneumonia.		Bronchitis.		Influenza.		Pulmonary Tuberculosis.		Other Respiratory Diseases.	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.
1921	- 33	·71	27	·58	4	·09	20	·43	10	·2
1922	- 54	1·15	30	·64	20	·43	21	·45	19	·41
1923	- 28	·58	19	·39	2	·04	33	·69	14	·29
1924	- 40	·82	46	·95	27	·55	20	·41	20	·41
1925	- 29	·60	15	·31	9	·18	22	·45	20	·41
1926	- 37	·76	28	·58	12	·24	21	·43	16	·33
1927	- 21	·44	33	·68	21	·43	28	·58	18	·37
1928	- 38	·79	25	·52	10	·21	20	·42	15	·32
1929	- 39	·80	23	·47	21	·43	18	·37	14	·28
1930	- 34	·69	23	·47	6	·12	19	·39	11	·22

*Malignant Diseases.*—The deaths falling under this heading numbered 60—males, 28; females, 32—thus showing a slight decrease in the deaths from malignant disease when compared with the figure of 63 for the previous year, and a slight preponderance of female deaths over males. The type of disease according to the certified cause of death was:—Carcinoma or cancer, 45; lympho sarcoma, 1; sarcoma, 2; malignant disease, 9; epithelioma, 2; rodent ulcer, 1.

The following table shows the distribution of the disease according to age and sex, and according to the organs and parts of the body affected:—

Age Period	Sex	Buccal Cavity	Pharynx, Stomach, &c.	Peritoneum, &c.	Female Genital Organs	Breast	Skin	Throat	Kidney	Bladder	Prostate	Femur	Others*	Total
Under 40 years,	{ M.	—	—	—	—	—	—	—	—	—	—	1	1	2
	{ F.	—	—	—	—	—	—	—	—	—	—	—	1	1
40-45	{ M.	—	2	—	—	—	—	—	—	—	—	—	—	2
	{ F.	—	—	—	2	—	—	—	—	—	—	—	—	2
45-50	{ M.	—	—	—	—	—	—	—	—	—	—	—	—	—
	{ F.	—	—	—	—	2	—	—	—	—	—	—	—	2
50-55	{ M.	—	1	—	—	—	—	—	—	—	—	—	2	3
	{ F.	—	1	—	1	1	—	—	—	—	—	—	—	3
55-60	{ M.	—	1	—	—	—	—	—	—	—	—	—	—	1
	{ F.	—	1	—	—	—	—	—	—	—	—	—	1	2
60-65	{ M.	1	3	—	—	—	—	—	—	—	1	—	2	7
	{ F.	—	2	—	—	—	—	—	—	—	—	—	1	3
65-70	{ M.	—	3	—	—	—	—	—	—	—	—	—	—	3
	{ F.	—	2	—	—	1	—	—	—	—	—	—	1	4
70-75	{ M.	—	1	—	—	—	—	2	—	—	1	—	—	4
	{ F.	—	2	1	—	1	1	—	—	—	—	—	1	6
75 years and over,	{ M.	1	1	—	—	—	—	—	—	1	2	—	1	6
	{ F.	—	5	—	—	1	1	—	1	—	—	—	1	9
All ages, ...	{ M.	2	12	—	—	—	—	2	—	1	4	1	6	28
	{ F.	—	13	1	3	6	2	—	1	—	—	—	6	32

\* This figure includes gall bladder, 1; nose, 1; liver, 1; glands, 1; pancreas, 2; rectum, 3; orbit, 1; scalp, 1; undefined, 1.



*Diabetes.*—The deaths from this disease during the year numbered 5. The complications as notified were gangrene, 1; cardiac failure, 2; pneumonia, 1. The remaining 2 cases were solely diabetes.

*Supply of Insulin.*—Insured persons and those in receipt of Poor Law medical relief are entitled to the provision of insulin from the Insurance Committees or Parish Councils, while those who do not come into this category can be supplied under the authority of the Public Health (Amendment) Act, 1925. The Upper Ward Scheme is similar to the scheme of the other two districts of the County, in which patients who are necessitous and whose treatment is being supervised by their doctor, can obtain a supply of insulin. Five patients have had insulin supplied to their medical attendants during the year for their treatment.

*Rheumatic Fever.*—The deaths during the year from this disease numbered 1. The complication as noted from the certified cause of death was as follows:—Valvular disease of the heart, 1.

The following statement shows the number of deaths per 10,000 of the population for the past five years:—

Year.				Number of Deaths.	Death-rate per 10,000 of the Population.
1926,	...	...	...	2	·41
1927,	...	...	...	7	1·45
1928,	...	...	...	2	·41
1929,	...	...	...	5	1·03
1930,	...	...	...	1	·20

## PREVALENCE OF INFECTIOUS DISEASE.

The diseases included under this heading are classified in relation to notification, and are divided into two groups. Group I includes diseases which are compulsorily notifiable (*a*) under the Notification Act, (*b*) by adoption under the Notification Act, and (*c*) by order of the Scottish Board of Health, and Group II, not compulsorily notifiable diseases. The diseases included in these groups are as follows :—

### GROUP I.

( <i>a</i> )	( <i>b</i> )	( <i>c</i> )
	August, 1906	1st August, 1912
Smallpox	Cerebro-spinal Menin-	Pulmonary Tuberculosis
Diphtheria	gitis	1st July, 1914
Scarlet Fever	24th October, 1912	All forms of Tuberculosis
Typhus Fever	Tetanus	1st November, 1918
Typhoid Fever	Anthrax	Ophthalmia Neonatorum
Puerperal Fever	Glanders	1st August, 1919, and
Erysipelas	Actinomycosis	21st November, 1927
		Malaria
		Dysentery
		Acute Influenzal-Pneumonia
		Acute Primary     do.
		21st December, 1925
		Infective Jaundice
		Infantile Paralysis
		Polio-encephalitis
		Encephalitis Lethargica
		26th March, 1927
		Chickenpox.
		1st October, 1929
		Puerperal Pyrexia

### GROUP II.

*Measles	Mumps	Ringworm
German Measles		Scabies
*Whooping-Cough		

\* Primary cases of those diseases under five years of age have been made notifiable under the Maternity and Child Welfare Scheme.

Table D shows the number of cases of notifiable infectious disease occurring in each parish, and in the following paragraphs the prevalence and distribution of each disease is summarised.

**TABLE D.—Number of Cases of Infectious Sickness recognised in each Parish during 1930.**

PARISH	Scarlet Fever.	Diphtheria.	Erysipelas.	Acute Primary Pneumonia.	Influenzal-Pneumonia.	Chickenpox.	Puerperal Fever.	Puerperal Pyrexia.	Ophthalmia Neonatorum.	Encephalitis Lethargica.	Tetanus.	Paratyphoid Fever.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Total.
Biggar, -	4	2	1	1	—	—	—	—	—	—	—	—	—	—	8
Carluke, -	41	19	9	18	1	15	—	2	1	—	—	—	8	7	121
Carmichael, -	19	5	1	1	—	—	1	—	—	—	—	—	—	—	27
Carnwath, -	18	11	—	3	—	9	—	—	—	—	—	—	4	2	47
Carstairs, -	5	11	2	3	—	13	—	1	1	—	—	2	3	1	42
Covington, -	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Crawford, -	7	3	2	—	—	—	—	—	—	—	—	—	2	1	15
Crawfordjohn, -	—	2	—	—	—	—	—	—	—	—	—	—	—	—	2
Coulter, -	—	2	—	—	—	—	—	—	—	—	—	—	—	—	2
Dolphinton, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Douglas, -	22	7	1	1	—	—	2	1	—	—	—	4	1	—	39
Dunsyre, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lamington, -	6	—	—	—	1	—	—	—	—	—	—	—	—	—	7
Lanark, -	5	25	4	11	1	15	—	1	—	—	1	—	3	1	67
Lesmahagow, -	24	31	14	29	—	62	3	—	—	1	—	7	2	8	181
Libberton, -	5	2	2	1	—	—	—	—	—	—	—	—	—	—	10
Pettinain, -	—	—	1	—	—	—	—	—	1	—	—	—	—	—	2
Symington, -	1	—	—	—	1	—	—	—	—	—	—	—	—	—	2
Walston, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Wiston, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total, -	158	120	37	68	4	114	6	5	3	1	1	13	23	20	573

*Note.*—There was also 1 case of Septicæmia in Carluke Parish.

The following tabular statement shows the housing in relation to notification of infectious disease :—

Disease.	1 apt	2 apts.	3 apts.	4 apts.	5 apts.	6 apts. and over	Inst.	Total Cases.
Scarlet Fever, -	10	95	19	18	5	10	1	158
Diphtheria, -	4	69	26	6	5	7	3	120
Puerperal Fever, -	—	5	1	—	—	—	—	6
Ophthalmia Neonatorum, -	—	3	—	—	—	—	—	3
Erysipelas, -	2	17	9	3	—	6	—	37
Acute Primary Pneumonia, -	7	33	12	3	3	3	7	68
Influenzal Pneumonia, -	—	—	—	1	1	1	1	4
Encephalitis Lethargica, -	—	—	—	—	—	1	—	1
Dysentery, -	—	1	—	—	—	—	—	1
Paratyphoid Fever, -	—	8	2	—	—	—	3	13
Chickenpox, -	10	60	16	7	4	4	13	114
Septicæmia, -	—	1	—	—	—	—	—	1
Puerperal Pyrexia, -	—	3	2	—	—	—	—	5
Pulmonary Tuberculosis, -	2	7	7	1	1	1	4	23
Non-Pulmonary Tuberculosis, -	4	6	6	2	1	—	1	20

**Smallpox.**

No case was reported during the year.

*Vaccination (Scotland) Act, 1907.*—The returns from the Registrars showing the number of statutory declarations of conscientious objections to vaccination are tabulated here according to registration district :—

	Year 1925.	Year 1926.	Year 1927.	Year 1928.	Year 1929.	Year 1930.
Biggar, -	—	1	—	—	—	—
Carluke, -	108	81	82	91	81	88
Carmichael, -	25	24	26	18	24	12
Carnwath, -	11	10	7	11	14	13
Forth, -	47	46	53	44	46	36
Tarbrax, -	24	19	19	7	4	8
Carstairs, -	6	7	5	8	10	12
Covington, -	3	—	—	1	—	—
Crawford, -	4	4	6	2	1	—
Leadhills, -	3	4	5	3	4	—
Crawfordjohn, -	1	2	2	2	2	2
Coulter, -	—	—	—	—	—	1
Dolphinton, -	—	—	—	—	—	1
Douglas, -	34	25	27	31	29	30
Dunsyre, -	—	1	1	—	1	—
Lamington, -	—	1	1	1	2	2
Lanark, -	2	11	8	6	12	23
Lesmahagow, -	88	55	46	54	49	60
Kirkfieldbank, -	7	7	—	9	6	9
Coalburn, -	34	26	20	20	19	22
Libberton, -	—	1	1	1	3	3
Pettinain, -	—	—	1	1	2	2
Symington, -	—	—	—	2	—	—
Walston, -	—	1	—	1	—	—
Wiston, -	—	1	—	—	—	—
	397	327	310	313	309	324

**Diphtheria.**

The following tabular statement shows the prevalence of this disease since 1892, as well as the number of deaths and respective rates:—

Year.	Cases Notified	Deaths Registered	Deaths per 100 Cases	Cases per 1,000 Population	Deaths per 10,000 Population
Average, 1892-95,	- 78	14	17.9	2.0	3.7
Average, 1896-1900,	- 89	6	6.7	2.2	1.4
Average, 1901-05,	- 66	7	10.6	1.6	1.6
Average, 1906-10,	- 156	7	4.4	3.6	1.7
Average, 1911-15,	- 95	8	8.4	2.1	1.8
Average, 1916-20,	- 82	7	8.5	1.8	1.5
Average, 1921-25,	- 78	4	5.6	1.6	1.2
1926, -	- 107	4	3.7	2.2	0.8
1927, -	- 83	4	4.8	1.7	0.8
1928, -	- 88	1	1.1	1.8	0.2
1929, -	- 123	4	3.2	2.5	0.8
1930, -	- 120	3	2.5	2.5	0.6

*Deaths.*—Three deaths from this disease occurred during the year, being a decrease of 1 as compared with the previous year. These three deaths occurred in the District Hospital, Roadmeetings.

*Notifications.*—The total number of notifications received during the year amounted to 120, showing a decrease of 3 in comparison with the number of cases notified in 1929. Of the 120 cases notified 112, or 93.3 per cent., were removed to hospital. The monthly distribution of the cases throughout the year was as follows:—

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
10	12	17	3	4	3	4	11	4	15	18	19

It will be seen that the prevalence of the disease was greatest during the first and fourth quarters of the year.

The age incidence of the cases and deaths was as follows:—

Ages.	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55
Cases, ...	—	27	39	25	14	10	3	2
Deaths, ...	—	—	3	—	—	—	—	—

Table D shows the number of cases notified in each parish, from which it will be seen that the greatest number was notified in the Parish of Lesmahagow. The various localities are here detailed:—

*Biggar Parish.*—Biggar, 2.

*Carluke Parish.*—Carluke, 15; Law, 4.

*Carmichael Parish.*—Douglas Water, 5.

*Carnwath Parish.* — Carnwath, 2; Kaimend, 5; New Woolfords, 4.

*Carstairs Parish.*—Carstairs Junction, 11.

*Crawford Parish.*—Crawford, 2; Leadhills, 1.

*Crawfordjohn Parish.*—Crawfordjohn, 2.

*Coulter Parish.*—Coulter, 2.

*Douglas Parish.* — Douglas, 4; Glespin, 1; Institution, 1; Douglas West, 1.

*Lanark Parish.*—New Lanark, 24; Institution, 1.

*Lesmahagow Parish.* — Lesmahagow, 5; Coalburn, 17; Blackwood, 1; Devonburn, 1; Kirkfieldbank, 4; Birkwood, 1; Turfholm, 2.

*Libberton Parish.*—Quothquan, 2.

*Return Cases.*—I case was counted as a return case during the year.

*Dairy Farms.*—3 cases (all children) occurred at 2 dairy farms. All of these cases were removed to hospital. The three cases gave “positive swabs.”

*Diphtheria Anti-toxin.*—Of the 120 cases notified, 7 of these received anti-toxin from the hands of the medical practitioners before the removal to hospital.

In connection with the bacteriological examination for the presence of diphtheria bacillus in the throat, out of the 120 notified cases, 82 gave positive swabs and 10 were returned as negative, while in 28 cases no swab was obtained before admission to hospital.



## Scarlet Fever.

The following tabular statement shows the prevalence of this disease since 1892, as well as the number of deaths and the respective rates :—

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1000 Population	Deaths per 10,000 Population.
Average, 1892-95, -	299	7	2.3	7.88	1.77
Average, 1896-1900,-	326	9	2.7	8.27	2.28
Average, 1901-05, -	187	4	2.1	4.56	0.97
Average, 1906-10, -	235	3	1.2	5.5	0.70
Average, 1911-15, -	264	5	1.9	6.03	1.14
Average, 1916-20, -	156	2	1.5	3.4	0.5
Average, 1921-25, -	312	5	1.4	6.5	1.06
1926,	148	1	0.6	3.0	0.2
1927, -	108	—	—	2.2	—
1928, -	268	4	1.5	5.5	0.8
1929, -	160	3	1.8	3.3	0.6
1930, -	158	1	0.6	3.2	0.2

*Deaths.*—1 death occurred from this disease during the year—in the District Hospital, Roadmeetings.

*Notifications.*—The total number of cases notified during the year amounted to 158, showing a decrease of 2 in comparison with the number of cases notified during the year 1929. Of the 158 cases notified, 141, or 89.2 per cent., were removed to hospital. The monthly distribution of the cases throughout the year was as follows :—

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
8	18	11	8	14	6	8	15	14	14	16	26

It will be seen that the prevalence of the disease was greatest during the fourth quarter of the year.

The age incidence of the cases and death was as follows:—

	Age,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55
Cases,	-	—	49	65	20	15	6	1	2
Deaths,	-	—	1	—	—	—	—	—	—

Table D shows the number of cases occurring in each parish and it will be noted that the disease was prevalent in the most populous areas.

The following statement shows the localities in which the cases occurred:—

*Biggar Parish.*—Biggar, 3; Institution, 1.

*Carlukie Parish.*—Carlukie, 30; Braidwood, 1; Law, 8; Hall-craig, 1; Castlehill, 1.

*Carmichael Parish.*—Douglas Water, 16; Rigside, 3.

*Carnwath Parish.*—Haywood, 2; Forth and Wilsontown, 6; New Woolfords, 10.

*Carstairs Parish.*—Carstairs Junction, 3; Carstairs, 2.

*Crawford Parish.*—Leadhills, 1; Crawford, 3; Abington, 1; Campswater, 1.

*Covington.*—Covington, 1.

*Douglas Parish.*—Douglas, 10; Douglas West, 11; Glespin, 1.

*Lanark Parish.*—New Lanark, 5.

*Lesmahagow Parish.*—Lesmahagow, 3; Coalburn, 7; Kirkfieldbank, 5; Auchenheath, 4; Blackwood, 4; Corehouse, 1.

*Lamington Parish.*—Lamington, 6.

*Libberton Parish.*—Libberton, 5.

*Symington Parish.*—Symington, 1.

*Return Cases.*—2 cases were counted as return cases during the year, the period elapsing between the date of discharge of the infecting case and the sickening of the return cases being 28 days.

*Dairy Farms.*—6 cases of the disease occurred (1 adult and 5 children) on 4 farms. Immediate removal of the cases to hospital was obtained in all instances, and, after the usual examination of the inmates and disinfection of the premises, the milk supply was continued.

### Enteric Fever.

The following tabular statement shows the prevalence of the disease since 1892, as well as the number of deaths and the respective rates :—

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1000 Population.	Deaths per 10,000 Population
Average,					
1892-95,	46·2	5·7	12·4	1·2	1·5
Average,					
1896-1900,	27·2	4·8	17·6	0·6	1·2
Average,					
1901-05,	- 20·2	3·8	18·88	0·4	0·9
Average,					
1906-10,	- 12·6	2·2	17·4	0·3	0·5
Average,					
1911-15,	- 6	1·4	23·3	0·13	0·3
Average,					
1916-20,	- 3·4	0·2	5·9	0·01	0·02
1921-25,	- 0·8	0·2	25·0	0·01	—
1926-28,	- —	—	—	—	—
1929,	- —	—	—	—	—
1930,	- *2	—	—	—	—

\* 1 case was notified as Paratyphoid "B" Fever but was re-diagnosed in hospital as Enteric Fever.  
The other case was notified as Encephalitis Lethargica, but re-diagnosed as Enteric Fever.

### Paratyphoid Fever.

13 cases of paratyphoid "B" fever were notified during the year, of which one was re-diagnosed in hospital as enteric fever and another as T.B. meningitis, giving a total of 11 cases. The parishes in which the cases occurred were as follows:—Carstairs, 2; Douglas, 4; Lesmahagow, 7. In spite of exhaustive inquiries the source of infection was not discovered, and the individual households had no contact with one another.

All cases were removed to hospital. The case re-diagnosed as T.B. meningitis died.

The age incidence of the cases was as follows :—

Age,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-65
Cases,	—	—	2	2	7	2	—	—	—

### Cerebro-Spinal Meningitis.

No cases were notified during the year.

### Encephalitis Lethargica.

1 case was reported during the year. The case was admitted to Roadmeetings Hospital, where it was re-diagnosed as enteric fever.

### Dysentery.

One case was notified during the year. The illness and symptoms were of short duration, but bacteriological examination showed the presence of Dysenteræ (Flexner). Further bacteriological examination proved negative.

### Actinomycosis.

No cases were reported during the year.

### Pneumonia.

The notifications of acute primary pneumonia numbered 68, while 4 cases of influenzal pneumonia were notified, the total number of pneumonia cases showing a decrease of 40 compared with the year 1929. The age periods of incidence are as follows:—

#### *Acute Primary Pneumonia—*

Age,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55 and over.
Cases, -	7	14	13	4	14	2	5	1	8

#### *Influenzal Pneumonia—*

Age,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55 and over.
Cases,	—	—	—	—	—	—	1	—	3

15 cases of acute primary pneumonia and 1 case of influenzal pneumonia were removed to hospital.

The death-rate and the number of deaths will be found under the heading of respiratory diseases, while the age periods of deaths will be found in Table C.

### Erysipelas.

Thirty-seven cases were notified during the year.

Age,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-65	65 and over.
Cases,	2	—	—	—	6	4	6	12	5	2
Deaths,	—	—	—	—	—	—	—	1	—	—

The distribution of cases according to parish will be found in Table D.

### Puerperal Fever and Puerperal Pyrexia.

*Puerperal Fever.*—6 cases of this disease were notified during the year by the medical practitioners in attendance. Four of the notified cases were treated in hospital, while 2 were treated at home. No deaths occurred.

*Puerperal Pyrexia.*—5 cases were notified during the year, and 4 of the notified cases were removed to hospital.

Further reference with regard to these diseases will be found in the section of the report dealing with Maternity and Child Welfare.

### Ophthalmia Neonatorum.

3 cases were notified during the year by the medical practitioners in attendance. 2 cases were removed to hospital. Further reference will be found in the section of the report dealing with Maternity and Child Welfare.

### Chickenpox.

The Public Health (Chickenpox) Regulations (Scotland), 1927, dated March 25th, 1927, made this disease notifiable forthwith. The regulations were to have effect until 30th September, 1927, but were continued until 31st December, 1928. They were again continued to remain in force until 31st December, 1930.

114 cases of the disease were notified. The type of disease was very mild, and the distribution of cases in the various parishes will be found in Table D.

The age incidence of the cases was as follows:—

Age,	-1	1-5	5-10	10-15	15-25	25-35	35 and over.
Cases,	8	33	61	9	1	1	1

### Measles and Whooping-Cough.

*Measles.*—There was a very marked increase in the number of cases which came to the knowledge of the department, 447 cases occurring in comparison with 55 during the previous year. These cases occurred in the following parishes:—Carluke, 38; Carmichael, 48; Carnwath, 3; Carstairs, 18; Crawford, 44; Douglas, 122; Lamington, 19; Lanark, 5; Lesmahagow, 142; Wiston, 8.

*Deaths.*—2 deaths occurred from measles during the year in the following parishes:—Lanark, 1; Lesmahagow, 1.

*Whooping-cough*.—There was a definite decrease in the number of cases of this disease occurring during the year. In all 73 cases came to the knowledge of the department compared with 403 cases during the previous year. These were distributed as follows in the several parishes:—Biggar, 1; Carluke, 1; Crawfordjohn 3; Lamington, 1; Lanark, 1; Lesmahagow, 66.

*Deaths*.—3 deaths occurred from this disease during the year in the following parishes:—Carluke, 1; Crawfordjohn, 1; Lesmahagow, 1.

Further reference to these diseases will be found in the section of the report dealing with Maternity and Child Welfare.

### **School Closure.**

No schools were closed during the year on account of infectious disease. Several schools, however, were visited and scholars inspected with a view to detecting unrecognised cases of infectious disease.

### **Anthrax.**

10 outbreaks of this disease in cattle were reported during the year and occurred in the following parishes:—Carluke, 2; Carmichael, 1; Covington, 1; Lesmahagow, 5; Lanark, 1. No cases of suspicious illness occurred amongst those persons in contact with the diseased animals.

### **Venereal Diseases.**

Specimens of blood for the Wassermann reaction numbered 26; of which 3 were reported positive and 23 negative, while of 12 bacteriological tests for the presence of gonococci, 10 were returned as negative and 2 as positive.

### **Refractories Industries (Silicosis) Scheme.**

There are no premises now under this scheme in the Upper Ward District.

## **TUBERCULOSIS.**

The Burghs of Biggar and Lanark are included in the Upper Ward District Tuberculosis Scheme, but statistics relating to the three areas are given separately.



**Upper Ward.—Mortality.**—The deaths from all forms of tuberculosis numbered 27, and were classified as follows:—

Age,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-65	65	Total.
Pulmonary,	—	1	—	—	2	5	7	2	2	19
Abdominal,	—	1	—	—	—	—	1	2	—	4
Meningeal,	—	—	—	—	—	—	—	1	—	1
Other Forms,—	—	—	—	—	—	1	—	1	1	3

The deaths will be found classified according to parishes in Table B.

**Death-rates.**—The following tabular statement shows the average quinquennial death-rates per 10,000 of the population since 1891-1925, along with the cases notified and deaths recorded, and also for the years 1926-27-28-29 and 1930:—

	PULMONARY.			NON-PULMONARY.		
	Cases Notified.	Deaths Registered.	Death-rate per 10,000 Population.	Cases Notified.	Deaths Registered.	Death-rate per 10,000 Population.
Annual Average—						
1891-95,	- —	45	12·0	—	23	6·2
1896-1900,	- —	47	11·9	—	17	4·4
1901-05,	- —	43	10·5	—	20	4·9
1906-10,	- 36	35	8·1	—	15	4·4
1911-15,	- 50	32	7·0	—	13	2·8
1916-20,	- 43	28	6·3	25	15	3·3
1921-25,	- 42	23	4·8	32	14	2·9
1926, -	- 32	21	4·3	32	11	2·2
1927, -	- 44	28	5·8	24	10	2·1
1928, -	- 30	20	4·4	31	9	1·9
1929, -	- 26	18	3·7	22	8	1·6
1930, -	- 23	19	3·8	20	8	1·6

The death-rate from all forms of the disease was ·55 per 1,000 of the population. From the above table it will be noted that the death-rates per 10,000 for both forms of the disease still show a steady decline.

**Notifications.**—The number of cases of tuberculosis notified during the year amounted to 43—pulmonary, 23; non-pulmonary, 20, showing a decrease of 5 in the total notifications as compared with the previous year. Of the 23 pulmonary cases 3 had been

previously notified. Of these, 2 died, while in 1 case the diagnosis was not established, leaving 17 new cases on the register at the end of the year. Of the 20 non-pulmonary cases notified, 2 cases had been previously notified. Of these, 2 died and 1 left the district, leaving 15 new cases on the register at the end of the year. The location of the disease in the 20 notified non-pulmonary cases was as follows:—Abdominal, 4; joints and bones, 8; cervical glands, 6; lupus, 1; others, 1.

The age incidence of the total cases of tuberculosis notified during the year was as follows:—

Age,	-1	1-5	5-15	15-25	25-45	45-65	65 and over.	Total.
Pulmonary,	—	1	3	5	10	3	1	23
Meningeal,	—	—	—	—	—	—	—	—
Abdominal,	—	2	2	—	—	—	—	4
Other Forms,	—	1	4	3	4	2	2	16
Total,	—	4	9	8	14	5	3	43

*Housing in Relation to Notification.*—For the housing in relation to the notification of tuberculosis see table on page 113.

*Age and Sex Distribution.*—The following table shows the age and sex distribution of the notified cases of pulmonary and non-pulmonary disease:—

*Pulmonary tuberculosis—23 notified—*

Age,	-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.
Males,	1	1	—	1	4	1	2	1	11
Females,	—	—	2	4	4	1	1	—	12

*Non-pulmonary tuberculosis—20 notified—*

Age,	-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.
Males,	1	4	1	1	1	1	1	1	11
Females,	2	1	—	2	2	—	1	1	9

*Duration of Illness.*—The duration of illness according to the patient's own estimate at the time of notification was as follows:—

Months,	-1	1-2	2-3	3-6	6-9	9-12	12-18	18-24	24 and over.	Total.
Pulmonary,	..	1	—	5	2	1	1	—	9	23
Non-Pulmonary,		2	3	1	2	3	1	—	7	20

*Deaths in relation to Notification.*—Of the 27 deaths from tuberculosis, 19 were of the pulmonary type and 8 were of the non-pulmonary type.

*Pulmonary.*—Of the 19 deaths 16 had been notified, leaving 3 not notified. Of the total deaths, 8 occurred in institutions as follows:—Roadmeetings Sanatorium, 3; Hartwood Asylum, 1; County Hospital, Motherwell, 1; Wishaw Hospital, 1; Manor Valley Sanatorium, Peebles, 1; Aulduthel Hospital, Inverness, 1.

*Non-pulmonary.*—8 deaths occurred from this type of disease. Of these, 2 were notified, leaving 6 not notified. Three deaths occurred in institutions as follows:—Roadmeetings Sanatorium, 2; St. Mary's Hospital, Lanark, 1.

The period elapsing between notification and death was:—Under 1 month, 1; 1-3 months, nil; 3-6 months, nil; 6-9 months, nil; 9-12 months, nil; 1-2 years, nil; over 2 years, 1.

*Occupation of Notified Cases.*—The following gives the notified cases classified according to occupational groups:—

<i>Domestic Work.</i>				Pulmonary.	Non-Pulmonary.
Housewives, ...	...	...	...	4	4
Domestics, ...	...	...	...	1	—
Children, ...	...	...	...	1	3
Scholars, ...	...	...	...	4	6
<i>Miners, &amp;c.</i>					
Miners, ...	...	...	...	3	1
<i>Factory and Workshon.</i>					
Factory Workers, ...	...	...	...	2	—
Other Occupations, ...	...	...	...	6	4
No Occupation, ...	...	...	...	2	2
Total, ...	...	...	...	23	20

*Total Cases on Record.*—The total cases on record as shown in the following statement amounted to 154—pulmonary, 81; non-pulmonary, 73.

#### CHANGES DURING 1930.

	Cases in		Total on	Left	Died.	Disease	Diagnosis		Cases in
	District	New					Diag-	T.B. not	
	1-1-30	Cases	Record.	District.		Arrested	nosis	estab-	District
							Revised.	lished.	31-12-30.
Pulmonary, -	82	23	105	10	11	2	1	—	81
Non-Pulmonary, 82	20	102	9	8	12	—	—	—	73

The 2 pulmonary cases taken off the list of cases in which the disease is apparently arrested, a period of 3 years or more having elapsed without any further breakdown in the condition of the patient.

The 12 non-pulmonary cases taken off the list consist of abdominal, 1; glands, 9; others, 2.

The diagnosis was revised in 1 pulmonary case to pneumonia with initial hæmoptysis.

STATEMENT showing number of persons resident in the area at 31st December, 1930, who were known to be suffering from Tuberculosis.

		NUMBER OF KNOWN CASES												
		Under 5	5 and 10	10 and 15	15 and 25	25 and 35	35 and 45	45 and 65	65 and upwards	Total				
PULMONARY.*														
1.	Tubercle found,	Bacilli	{ Males,	—	—	—	3	7	4	3	—	17		
		...	{ Females,	—	1	—	4	3	5	1	—	14		
2	Tubercle not found,	Bacilli	{ Males,	1	1	1	4	6	6	6	1	26		
		...	{ Females,	—	—	4	7	4	2	6	1	24		
Pulmonary Total,				-	-	1	2	5	18	20	17	16	2	81
NON-PULMONARY.†														
1.	Abdominal,	...	{ Males,	1	4	1	—	2	—	—	—	8		
			{ Females,	2	2	1	3	—	—	—	—	8		
2.	Spine,	...	{ Males,	—	1	—	—	1	—	—	—	2		
			{ Females,	—	—	—	1	—	1	—	—	2		
3.	Bones and Joints, (exclusive of Spine),	...	{ Males,	1	2	5	2	1	2	1	1	15		
			{ Females,	1	1	2	2	1	—	—	—	7		
4.	Superficial Glands,	...	{ Males,	—	2	3	4	—	1	—	—	10		
			{ Females,	2	4	2	3	1	1	1	—	14		
5.	Lupus,	...	{ Males,	—	—	—	—	—	—	—	—	—		
			{ Females,	—	—	—	1	—	—	—	1	2		
6.	Other parts or Organs,	...	{ Males,	—	—	—	1	1	1	—	—	3		
			{ Females,	—	—	—	—	1	1	—	—	2		
Non-Pulmonary Total,				-	7	16	14	17	7	8	2	2	73	

\* Persons suffering from both pulmonary and non-pulmonary tuberculosis included under "Pulmonary" only.

† Persons suffering from multiple lesions classified according to the site of the principal lesion. No case included more than once in the return.

*Domiciliary Treatment.*—The number of cases receiving domiciliary treatment during the year amounted to 37.

*Admission to Sanatoria.*—33 patients from the Upper Ward Area were admitted to the District Sanatorium during the year. Of these, 23 were pulmonary cases and 10 non-pulmonary.

In addition, the following cases were admitted to sanatoria, in the Middle Ward Area as follows:—County Sanatorium, Shotts, 1 pulmonary case; County Orthopædic Hospital, Stonehouse, 3 non-pulmonary cases; Hairmyres Colony, 2 pulmonary cases; County Hospital, Motherwell, 1 non-pulmonary case. 2 cases of lupus received outdoor treatment at the County Orthopædic Hospital, Stonehouse.

*X-ray Examinations.*—29 cases were examined at the County Hospital, Motherwell.

**Burgh of Lanark.**—During the year there were 6 deaths from tuberculosis—pulmonary, 4; non-pulmonary, 2.

The notifications received numbered 13. The notifications according to the forms of the disease were as follows:—Pulmonary, 7; non-pulmonary, 6.

The occupations of the cases notified were classified thus:—Factory workers, 3; engineer, 1; scholars, 3; housewives, 2; clerk, 1; teacher, 1; other occupation, 1; no occupation, 1.

The age incidence of the cases notified was as follows:—

	Age,	1-5	5-15	15-25	25-45	45-65	65 and over	Total
Pulmonary,	-	—	—	4	2	1	—	7
Non-pulmonary, -		1	2	1	1	1	—	6

*Institutional Treatment.*—4 cases—4 pulmonary received treatment in the District Sanatorium, Roadmeetings, and 1 pulmonary case in Hairmyres Sanatorium.

*Domiciliary Treatment.*—3 cases received treatment.

**Burgh of Biggar.**—No deaths were registered from tuberculosis during the year.

2 notifications were received—pulmonary, 1; non-pulmonary, 1.

The occupations of the cases notified were scholar, 1; housewife, 1.

*Institutional Treatment.*—No cases received treatment during the year.

*Domiciliary Treatment.*—No cases received treatment during the year.

## MATERNITY AND CHILD WELFARE.

While the Burghs of Biggar and Lanark are included in the Upper Ward Scheme, the statistics relating to the three areas are given separately.

UPPER WARD.—*Health Visiting Staff*.—There are three full-time Nurse Health Visitors, and, in addition, they act as Assistant Inspectors of Midwives. Part-time assistance is also received from the District Nursing Associations at Biggar, Crawford, Thankerton, Forth, and Lesmahagow.

*Births*.—The number of births registered in the Upper Ward, corrected for transfers, numbered 808—males, 449; females, 359—the birth-rate for the year being 16·5 per 1,000 of the population. Of the 808 births, 71 were illegitimate—males, 47; females, 24—giving an illegitimate rate of 8·7 per 100 births.

*Notification of Births*.—The number of notifications received was 855, of which 822 were live-births, and the remaining 33 being still-births. The percentage of births notified to births registered was 94·5. The 33 still-births were attended as follows:—31 by medical practitioners and 2 by certified midwives, while of the 822 live-births it was found that 733, or 89·2 per cent. were attended by doctors; 88, or 10·7 per cent., by certified midwives; and 1, or ·1 per cent., by an uncertified midwife.

*Still-births*.—These numbered 33. From the notifications received it was found that 26 or 78·8 per cent., were full-time, and the remainder, 7, or 21·2 per cent., were premature.

Table E shows the births registered, births notified, visits made by the Nurse Health Visitors, the attendant at confinement as ascertained at the first visit, infant deaths registered, and the infantile death-rate, the information being tabulated according to registration districts, and sub-divided into agricultural and industrial areas.

*Infantile Mortality*.—Infant deaths numbered 49 after correction for transfers—males, 37; females, 12—giving an infant mortality rate of 60·6 per 1,000 births. Of these deaths, 44 were of legitimate infants—males, 32; females, 12; while the illegitimate deaths numbered 5—males, 5. The number of deaths showed a decrease of 15 in comparison with the previous year's figure of 64.



TABLE E.

128A

REGISTRATION DISTRICTS.	BIRTHS.			NUMBER OF VISITS.				ATTENDANT AT CONFINEMENT.			INFANT DEATHS.		
	Registered (corrected for transfers).	Notified.		First.	Subsequent.	Other.	TOTAL.	Doctor.	Certified Midwife.	Handy Woman.	Registered (corrected for transfers).	Infant Mortality Rate.	
		Alive.	Still-born.										
<i>Chiefly Industrial.</i>													
Carluke, ... ..	196	194	3	177	1,364	145	1,686	182	15	...	18	...	
Carmichael, ... ..	37	35	5	35	363	30	428	38	2	...	1	...	
Carnwath, ... ..	35	32	2	30	339	29	398	32	1	1	3	...	
Forth, ... ..	65	66	3	43	667	13	723	65	4	...	4	...	
Tarbrax, ... ..	17	14	...	14	260	19	293	14	...	...	...	...	
Carstairs, ... ..	35	32	1	24	419	24	467	30	3	...	1	...	
Leadhills, ... ..	11	10	...	...	...	...	...	10	...	...	2	...	
Douglas, ... ..	68	73	8	56	648	141	845	80	1	...	5	...	
Lanark, ... ..	30	62	...	22	410	58	490	37	25	...	1	...	
Lesmahagow, ... ..	152	149	8	141	1,456	266	1,863	135	22	...	10	...	
Kirkfieldbank, ... ..	36	35	1	29	422	97	548	24	12	...	...	...	
Coalburn, ... ..	52	51	1	49	436	158	643	52	...	...	3	...	
Total, ... ..	734	753	32	620	6,784	980	8,384	699	85	1	48	65.4	
<i>Chiefly Agricultural.</i>													
Biggar, ... ..	12	11	...	11	68	30	109	11	...	...	...	...	
Covington, ... ..	2	2	...	2	115	6	123	2	...	...	...	...	
Crawford, ... ..	8	8	1	20	101	6	127	9	...	...	...	...	
Crawfordjohn, ... ..	11	11	...	...	...	...	...	10	1	...	...	...	
Coulter, ... ..	4	3	...	4	28	7	39	3	...	...	...	...	
Dolphinton, ... ..	3	4	...	...	...	...	...	4	...	...	...	...	
Dunsyre, ... ..	3	2	...	...	...	...	...	2	...	...	...	...	
Lamington, ... ..	3	2	...	...	...	...	...	2	...	...	...	...	
Libberton, ... ..	7	8	...	2	36	10	48	7	1	...	1	...	
Pettinain, ... ..	7	6	...	6	99	8	113	6	...	...	...	...	
Symington, ... ..	8	7	...	7	43	17	67	6	1	...	...	...	
Walston, ... ..	2	2	...	...	...	...	...	2	...	...	...	...	
Wiston, ... ..	4	3	...	...	...	...	...	3	...	...	...	...	
Total, ... ..	74	69	1	52	490	84	626	67	3	...	1	13.5	
Combined Total,	808	822	33	672	7,274	1,064	9,010	766	88	1	49	60.6	
Burgh of Biggar, ... ..	20	16	...	20	227	135	382	16	...	...	...	...	
Burgh of Lanark, ... ..	106	98	8	80	813	132	1,025	80	26	...	4	38.1	
Total, ... ..	934	936	41	772	8,314	1,331	10,417	862	114	1	53	56.8	



Of the 49 deaths, 25 or 51 per cent., occurred during the first four weeks of life, while of these 25 deaths, 10 were due to premature birth and 13 fall into the classification of atrophy, debility, and marasmus.

TABLE F

	Weeks.		Months.			Total.
	.1	1-4	1-3	3-6	6-12	
Chickenpox, - - - - -	—	—	—	—	—	—
Measles, - - - - -	—	—	—	—	—	—
Scarlet Fever, - - - - -	—	—	—	—	—	—
Whooping-Cough, - - - - -	—	—	—	1	—	1
Diphtheria and Croup, - - - - -	—	—	—	—	—	—
Erysipelas, - - - - -	—	—	—	—	—	—
Tuberculous Disease, - - - - -	—	—	—	—	—	—
Meningitis (not Tuberculous), - - - - -	—	—	—	—	—	—
Hydrocephalus, - - - - -	—	—	—	1	—	1
Convulsions, - - - - -	—	—	—	—	—	—
Pneumonia (all forms), - - - - -	—	2	2	—	4	8
Influenza, - - - - -	—	—	—	—	—	—
Bronchitis, - - - - -	—	—	1	1	1	3
Diarrhœa and Enteritis, - - - - -	—	1	—	—	—	1
Other Digestive Diseases, - - - - -	—	—	—	—	—	—
Congenital Malformation, - - - - -	2	—	2	—	1	5
Congenital Heart Disease, - - - - -	—	—	—	—	—	—
Premature Birth, - - - - -	9	1	—	—	—	10
Atrophy, Debility, and Marasmus, - - - - -	4	2	—	4	3	13
Atelectasis, - - - - -	1	—	—	—	—	1
Injury at Birth, - - - - -	1	—	—	—	—	1
Suffocation (overlying), - - - - -	—	—	—	—	—	—
Syphilis, - - - - -	—	—	—	—	—	—
All other causes, - - - - -	2	—	—	2	1	5
Total, -	19	6	5	9	10	49

*Maternal Mortality.*—Following the issue of the memorandum of the Department of Health on the investigation of maternal deaths, dated August, 1929, and instructions from the Medical Officer of Health, dated September, 1929, the cause of all deaths occurring during confinement and within four weeks thereafter are carefully inquired into and a report on the prescribed form forwarded to the Department.



The maternal deaths occurring during the year numbered 3, the certified causes of death being (1) eclampsia, exhaustion (County Maternity Hospital, Bellshill); (2) concealed ante-partum hæmorrhage (County Maternity Hospital, Bellshill); (3) thrombo-phlebitis, acute nephritis.

Year	Total Births Notified	Maternal Deaths	Maternal Mortality per 1,000 births
1921, ... ..	1,217	5	4·1
1922, ... ..	1,120	5	4·4
1923, ... ..	1,157	3	2·6
1924, ... ..	1,117	8	7·1
1925, ... ..	1,030	5	4·8
1926, ... ..	1,015	6	5·9
1927, ... ..	923	3	3·2
1928, ... ..	895	5	5·5
1929, ... ..	886	5	5·6
1930, ....	855	3	3·5

*Hospital Treatment.*—Two of these deaths occurred in hospital while the remaining one occurred at home.

#### *Puerperal Fever and Puerperal Pyrexia.*

*Puerperal Fever.*—6 cases were notified during the year by the medical practitioners in attendance.

*Hospital Admissions.*—Of the 6 cases notified, 4 were removed to hospital, the remaining 2 being treated at home.

*Deaths.* No deaths occurred.

*Puerperal Pyrexia.*—5 cases under this heading were notified during the year. Of these, 4 cases were treated in hospital, the remaining one being treated at home.

The following statement shows the total cases of puerperal sepsis along with the case-rate and death-rate for the last 10 years:—

Year	Total Births Notified	Total Cases	Rate per 1,000 Births	Deaths	Death-rate per 1,000 Births
1921,	1,217	—	—	—	—
1922,	1,120	1	0·9	—	—
1923	1,157	1	0·8	—	—
1924.	1,117	3	2·6	3	2·6
1925,	1,030	5	4·8	1	0·9
1926,	1,015	5	4·9	3	2·9
1927,	923	4	4·3	1	1·0
1928,	895	3	3·4	2	2·2
1929,	886	4	4·5	—	—
1930,	842	6	7·1	—	—

*Requests for Medical Assistance.*—In 2 cases medical assistance was requested under this scheme. These were both cases of delayed labour.

*Maternity Homes.*—Under Part 2 of the Midwives and Maternity Homes (Scotland) Act, 1927, two applications were received and granted and registered in accordance with the Act as follows:—

- (1) *The house of the District Nurse in Carlisle.*—This house is situated in the District Committee's Housing Scheme, and has all modern conveniences. The District Nurse in question holds the C.M.B. Certificate, and, while she would be able to attend to the nursing of the patient, it is the intention that the patient's medical attendant should attend the confinement. The accommodation for cases is one bed-room (1 bed). No cases were admitted during the year.
- (2) *Fairhaven Maternity Home, Lanark.*—This house stands in its own grounds, and is fitted with all modern conveniences and requirements. The Matron of this house holds both the English and Scottish C.M.B. Certificates, and has had previous experience in conducting an institution. In the majority of cases the medical attendants of the patients conduct their own cases.

The accommodation consists of 2 small wards containing 3 and 2 beds respectively, along with 4 private rooms, giving a total accommodation of 8 beds.

The following are the statistics for this institution:—

Sixty-eight cases were admitted during the year for confinement, 47 of which were conducted by the medical attendant, and twenty-one by midwife. There were sixty-five live-births and three still-births which were notified by the medical attendants, the cause being:— (1) contracted pelvis; (2) macerated foetus (premature); (3) placenta prævia.

*Deaths.*—1 death occurred in the institution during the year, the cause of death being certified as central placenta prævia.

*Ante-Natal Cases.*—No ante-natal cases were admitted during the year.

*Abortions.*—No cases were admitted during the year.

*Normal Confinements.*—41 cases were normal confinements, *i.e.*, no interference with the mechanism of labour during the second or third stages. Twenty of these were conducted by the medical attendant,

*Abnormal or Complicated Confinements.*—There were 27 cases of instrumental deliveries. The conditions found in connection with the instrumental deliveries were—contracted pelvis, 9; delayed labour, 15; placenta prævia, 1; exhaustion, 2.

*Ophthalmia Neonatorum.*—During the year 3 cases were notified by the medical practitioners in attendance. 2 cases were removed to hospital, the remaining one being treated at home. All the cases made a complete recovery.

*Measles and Whooping-cough.*—Under this scheme partial notification of these diseases is in force in the district.

*Measles.*—In all 447 cases came to the knowledge of the department during the year. Of these, 158 were notified by the doctor in attendance, while the remainder were reported by the Health Visitors and from schools. 247 of the total number were under 5 years of age, the age incidence of the cases being as follows:—

Age,	1	1-3	3-5	5-10	10 and over
Cases, ...	25	78	144	178	22
Deaths, ...	—	—	2	—	—

*Deaths.*—2 deaths occurred during the year the ultimate cause of death being (1) Measles, 10 days; broncho-pneumonia, 7 days; (2) measles, broncho-pneumonia.

*Hospital Admissions.*—4 cases of measles were admitted to the District Hospital, Roadmeetings, during the year.

*Whooping-cough.*—73 cases came to the knowledge of the department during the year, and of these 26 were notified by the medical attendant, the remainder by the nursing staff and from schools. Of the total 73 cases, 54, or 73.9 per cent., were under 5 years of age.

*Deaths.*—3 deaths from this disease occurred during the year, 2 or 66.6 per cent., occurring during the first 12 months of life. The ultimate causes of death were as follows:—Broncho-pneumonia, 1; convulsions, 1; exhaustion, 1.

The age incidence of cases and deaths were as follows:—

Age,	1	1-3	3-5	5-10	10 and over
Cases, ...	8	29	17	19	—
Deaths, ...	1	1	1	—	—



*Hospital Admissions.*—No cases of whooping-cough were admitted during the year.

*Hospital Accommodation for Measles and Whooping-cough.*—Arrangements are in force whereby severe cases, or cases where home conditions are not satisfactory, can be admitted to the District Hospital, Roadmeetings.

The following tabular statement shows the death-rate per 10,000 of the population and the actual number of deaths during the past ten years:—

Year	Measles		Whooping-Cough	
	Deaths	Death-rate	Deaths	Death-rate
1921, ... ..	—	—	17	3·6
1922, ... ..	8	1·7	10	2·1
1923, ... ..	4	·8	12	2·5
1924, ... ..	13	2·6	10	2·0
1925, ... ..	1	·2	11	2·2
1926, ... ..	6	1·2	—	—
1927, ... ..	3	·6	3	·6
1928, ... ..	5	1·0	6	1·2
1929, ... ..	—	—	10	2·0
1930, ... ..	2	·4	3	·6

*Home Visitation.*—The visits made under this scheme, excluding the two burghs which are given later, numbered 9,010, of which 672 were first visits, 7,274 subsequent visits, and 1,064 other visits. Of these visits, 518 first visits, 5,392 subsequent visits, and 966 special visits were made by the Nurse Health Visitors. The visits made by the District Nurses numbered 154 first visits, 1,882 subsequent visits, and 98 special visits, giving a total of 672 first visits, 7,274 subsequent visits, and 1,064 special visits. Special visits included—expectant mothers, 468; whooping-cough, 64; measles, 337; chickenpox, 61; mumps, 27; other visits, 107.

The total visits including the two burghs were as follows:—772 first visits, 8,314 subsequent visits, and 1,331 special visits, giving a total of 10,417 visits paid under this scheme.

*Child Welfare Centres.*—The attendances and consultations at the four Child Welfare Centres were as follows:—

	Mothers	Babies and Children	Consultations
Lanark, - -	787	955	91
Carluke, . -	1,182	1,358	101
Coalburn, . -	214	261	37
Douglas Water, -	268	422	13

*Feeding of Infants.*—Of the 772 first visits made, it was found that the feeding of these infants at the time of first visit was as follows :—

BREAST			Cow's Milk Only	Patent Food Only	Cow's Milk and Patent Food
Only	With Cow's Milk	With Patent Food			
578	54	16	116	6	2

After deduction of removals and deaths it was found from the records that the feeding at six months could be obtained of 248 infants. The feeding of these infants is given at time of first visit for comparison with the feeding at six months in the following statement :—

	BREAST			Cow's Milk Only	Patent Food Only	Cow's Milk and Patent Food
	Only	With Cow's Milk	With Patent Food			
At first visit,	190	12	1	40	4	1
At 6 months,	106	19	2	98	23	—

*Necessitous Cases.*—Following the practice of previous years, those receiving assistance have been classified according to their medical condition. The number shows a definite decrease from last year and is made up as follows :—Expectant mothers, 96; nursing mothers, 21; children under 1 year, 48; children under 5 years, 57 :—

	Mothers.		Children.		Total.
	Expectant.	Nursing.	-1	-5	
Debility, - - -	78	70	31	25	204
Inability to Nurse, - - -	—	29	—	—	29
Loss of Weight, - - -	—	—	5	3	8
Malnutrition, - - -	—	1	6	6	13

*Infectious Diseases (Debility following)—*

Measles, - - -	—	—	2	2
Whooping-Cough, - - -	—	1	9	10

*Respiratory Diseases—*

Bronchitis, - - -	1	1	3	5
Pneumonia, - - -	—	1	4	5

*Digestive Diseases—*

Gastro-Enteritis, - - -	—	2	3	5
Gastritis, - - -	2	1	—	3

*Diseases connected with Pregnancy—*

Phlebitis, - - -	1	—	—	1
Hyperemesis Gravidarum, -	2	—	—	2
Mastitis, - - -	2	—	—	2
Albuminuria, - - -	3	—	—	3

*General Diseases—*

Anæmia, - - -	12	14	1	27
Impetigo, - - -	—	—	1	1
Cardiac Disease, - - -	1	1	—	2

Total, - - -	96	121	48	57	322
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*Hospital Admissions.*—During the year there were 64 admissions to the County Maternity Hospital, Bellshill, which were classified as follows:—Normal confinements, 48; abnormal confinements, 3; illness connected with pregnancy, 12. While most of the normal confinements were admitted on account of housing and domestic conditions, others were sent in by practitioners as emergency cases, the birth taking place naturally in hospital. One child under 5 years was admitted with mother.

During the year there were 2 admissions to the County Convalescent Home, Calderbank House, Baillieston. They were classified as follows:—Children under 5 years, 2; marasmus, 2.

To the District Hospital, Roadmeetings, there were 14 admissions. Illness connected with pregnancy, 7. Children under 5 years, 7—measles, 4; ophthalmia neonatorum, 2; impetigo, 1.

To the County Hospital, Motherwell, there were 3 admissions. Illness connected with pregnancy, 3.

To the County Hospital, Lanark, there were 9 admissions—illness connected with pregnancy, 4; children under 5 years, 5; debility, 5.

*Ear, Throat, and Nose Ailments.*—There were no admissions under this heading during the year.

*Ultra-Violet Ray Therapy.*—In the debilitated conditions of infants good results continued to be obtained from the use of this form of treatment. Cod-liver oil emulsion is given as a routine along with the lamp treatment. Treatment is usually commenced with short exposures—back and front—at a distance of three feet for  $1\frac{1}{2}$  minutes. The lamp was used on 84 days during the year, and a total of 734 exposures were given. Mothers attended with their infants with great regularity.

**Burgh of Lanark.**—The number of births in the burgh after correction for transfers amounted to 100, of which 5 were illegitimate, giving a birth-rate of 15·6 per 1,000 of the population.

The attendant at birth will be found in Table E, which also gives the number of births notified and the visits made by the Nurse Health Visitor.

*Infant Mortality.*—The deaths of infants under 1 year numbered 4, giving an infant mortality rate of 40 per 1,000 births. The certified causes of death were:—Hæmorrhage from umbilical cord, 1; prematurity, 1; septicæmia neonatorum (umbilical), 1; congenital heart disease, 1.

*Ophthalmia Neonatorum.*—No cases were notified during the year.

*Hospital Admissions.*—During the year 12 cases were admitted to the County Maternity Hospital, Bellshill—normal cases of confinement, 12.

During the year 5 cases were admitted to the District Hospital, Roadmeetings. Children under 5 years, 5 (measles, 3; infantile diarrhœa, 1; impetigo, 1).

To the County Convalescent Home, Calderbank House, 1 case was admitted. Children under 5 years, 1 (debility).

*Ear, Throat, and Nose Ailments.*—2 children were admitted to the County Convalescent Home, Calderbank House, for the removal of tonsils and adenoids. 1 case was admitted to the County Hospital, Motherwell, for removal of tonsils and adenoids.

*Necessitous Cases.*—The cases receiving assistance during the year numbered 35. These were as follows:—Expectant mothers, 8; nursing mothers, 13; children under 1 year, 5; children under 5 years, 9. The following statement shows the physical condition of the cases granted assistance:—

	Mothers.		Children.		Total.
	Expectant.	Nursing.	-1	-5	
Debility, ... ..	4	2	4	1	11
Inability to Nurse, ... ..	—	10	—	—	10
Malnutrition, ... ..	—	—	1	1	2
<i>Infectious Diseases</i>					
<i>(Debility following)</i> —					
Measles, ... ..	—	—	—	1	1
Whooping-Cough, ... ..	—	—	—	3	3
<i>Respiratory Diseases</i> —					
Bronchitis, ... ..	1	—	—	2	3
<i>Digestive Diseases</i> —					
Gastritis, ... ..	1	—	—	1	2
<i>General Diseases</i> —					
Anæmia, ... ..	2	1	—	—	3
Total. ... ..	8	13	5	9	35

**Burgh of Biggar.**—The number of births after correction for transfers amounted to 20—males, 12; females, 8, giving a birth-rate of 13 per 1,000 of the population.

The notifications of birth and the attendants at birth as well as the visits made by the Nurse Health Visitor will be found in Table E.

*Infant Mortality.*—No deaths occurred in children under 1 year.

*Hospital Admissions.*—There were no admissions to hospital.

*Ophthalmia Neonatorum.*—There were no cases during the year.

*Necessitous Case.*—1 case received assistance during the year.

### GENERAL SANITATION.

In the report of the Sanitary Inspector, which is incorporated, will be found an account of the work done under the headings, "Housing," "Water Supply," "Drainage and Sewage Disposal," "Scavenging," "Nuisances," "Tents, Vans, and Sheds," "Workshops," "Sanitary Conditions of Dairies, Cowsheds and Milkshops, &c."

### MILK (SPECIAL DESIGNATIONS) ORDER (SCOTLAND), 1930.

During the year there were producers in possession of a licence from the Local Authority to sell the various grades of milk under the above Order. These are as follows:—Certified milk, 6; Grade A (T.T.), 20; Grade A, 2. With the exception of a certain amount retailed in Biggar, Lanark and Carluke areas, the bulk of the milk is sent out of the district.

The following were the licences held during the year:—

Grade of Licence.	Name and Address of Licensee.
Certified	Andrew Murdoch, Teaths, Lesmahagow.
Do.	John Russell, Walston Mansions, Dunsyre.
Do.	James G. Gilchrist, Auchtygemmel, Lesmahagow.
Do.	Harry Roscoe, Boghead, Crawford.
Do.	J. & T. Blackwood, Hill of Kilncadzow, Carluke.
Do.	James Hodge, Brownhill, Carnwath.
Grade A (T.T.) and Bottler's Licence	T. B. McGregor, Lesserlinn, Lanark.

Grade of Licence.	Name and Address of Licensee.
Grade A (T.T.)	Gavin Hamilton, Auldtoun, Lesmahagow.
Do.	John Kirkwood, Scorrieholm, Lesmahagow.
Do.	Right Hon. Earl of Home, Newmains, Douglas.
Do.	T. & W. Ballantyne, Woods, Auchenheath.
Do.	Thomas C. Stewart, Southfield, Kirkmuirhill.
Do.	James Barr, Whiteshaw, Carlisle.
Do.	Hugh C. Brown, Birkwood Mains, Lesmahagow.
Do.	John Struthers, Anston, Dunsyre.
Do.	R. & W. Wallace, Linnhead, Lesmahagow.
Do.	Walter Adamson, Harleyholm, Carmichael.
Do.	John Cadzow, Craighead, Carlisle.
Do.	John Fairie, Blackwoodyards, Kirkmuirhill.
Do.	Lindsay Steele, Blackhill, Lesmahagow.
Do.	James A. Brown, Cornistoun Towers, Biggar.
Do.	Thomas Pate, South Draffan, Kirkmuirhill.
Do.	Thomas Scott, Netherhall, Lesmahagow.
Do.	Samuel A. Ballantyne, Eastwood, Lesmahagow.
Do.	Donald Ian Brown, Bushelhead, Carlisle.
Do.	R. & T. Scott, Eastertown, Douglas Water.
Grade A and Bottler's Licence	James Barrie, Mossplatt, Carstairs.
Grade A	Archibald Affleck, Barnhills, Douglas Water.

### VETERINARY INSPECTION OF DAIRY HERDS.

The prevalence of tuberculosis of the udder among dairy stock is detailed in the following table, which shows the work done in the Upper Ward Area during the year. Samples of milk were drawn from all udders which, upon examination, showed a suspicious condition. 321 samples of milk were taken in this way and sent to the County Laboratory for examination, when 30 samples were found to contain tubercle bacilli. In these cases, certificates were granted by the County Veterinary Surgeon, stating that the animal suffered from tuberculosis of the udder, the animal being thereafter slaughtered under the Tuberculosis Order.

Under the Milk and Dairies (Scotland) Act, 1914, which came into force on 1st September, 1925, it is an offence to sell milk from a cow suffering from any disease liable to infect or contaminate the milk. Samples of milk are therefore taken in any case where a suspicious condition of the udder is noted. If, on examination in the laboratory, any samples are found to contain the streptococcus or mammitis or



other infective organisms, a letter is sent to the owner of the animal pointing out that it is an offence to sell the milk from such a cow for human consumption, and asking him what he is doing to comply with the statute. During the year 71 such letters were sent.

## UPPER WARD DISTRICT.

## VETERINARY INSPECTION OF DAIRY HERDS.—YEAR 1930.

Parish	Herds Registered	Herds Inspected	Cows Inspected	Cows with Abnormal Condition of Udder						Samples of Milk			
				Tubercle	Atrophy	Mammitis	Induration N.T.	Eruption on Teats	Totals	Number taken	Number found to contain Tubercle	Number found to contain Infectious Organisms	Number Negative
Biggar,	22	24	480	—	16	1	11	—	28	12	—	2	10
Carlisle,	72	80	1,388	1	42	1	17	—	61	20	1	4	15
Carmichael,	21	29	490	2	23	—	7	—	32	9	2	2	5
Carnwath,	85	94	2,270	11	47	2	42	3	105	66	11	11	44
Carstairs,	21	28	746	4	22	—	11	3	40	20	4	4	12
Covington	11	14	239	—	5	1	3	—	9	5	—	1	4
Crawford,	11	33	132	—	1	—	1	—	2	3	—	—	3
Crawfordjohn,	19	24	342	—	13	—	6	—	19	6	—	1	5
Coulter,	7	17	114	—	1	—	—	—	1	1	—	—	1
Dolphinton,	16	14	210	1	5	—	4	—	10	7	1	3	3
Douglas,	19	23	316	3	13	1	2	2	21	7	3	2	2
Dunsyre,	7	6	113	—	2	—	—	—	2	1	—	—	1
Lamington,	7	12	126	—	2	—	1	1	4	1	—	—	1
Lanark,	22	31	543	2	17	—	19	—	38	25	2	6	17
Lesmahagow,	160	189	3,793	5	144	10	72	7	238	92	5	28	59
Libberton,	23	29	713	—	31	1	17	—	49	21	—	2	19
Pettinain,	13	16	288	2	13	—	5	—	20	8	2	—	6
Symington,	15	19	150	—	6	1	3	—	10	4	—	3	1
Walston,	21	28	339	1	8	—	7	—	16	7	1	1	5
Wiston, &c.,	15	23	278	—	7	—	5	—	12	6	—	1	5
Total for													
Upper Ward,	587	733	13,070	32	418	18	233	16	717	321	32	71*	218

\*These samples were taken from 70 cows.

## PUBLIC AND PRIVATE SLAUGHTERHOUSES.

There are in the Upper Ward District 4 public and 7 private slaughterhouses, the latter including a large sheepery.

The public abattoirs are situated in Carluke, Douglas, Forth, and Lesmahagow, and the private slaughter-houses in the following areas:—Abington, Carnwath, Carstairs Junction, Crawford, Douglaswater, Leadhills, and Symington.

All the slaughter-houses within the district were regularly visited and, with few exceptions were conducted in accordance with the By-laws.

The following table gives a record of (a) the animals killed and (b) the carcasses totally destroyed or partially condemned during the year in the various public abattoirs:—

1930.

### RECORD OF ANIMALS KILLED.

Abattoir	Bulls	Bullocks	Cows	Heifers	Calves	Sheep	Swine	Totals
Carluka, - -	22	429	95	197	3,325	764	2,209	7,041
Douglas, - -	...	54	...	4	...	146	16	220
Forth, - - -	...	239	...	...	...	175	43	457
Lesmahagow,	67	256	247	67	3	332	34	1,006
Total, -	89	978	342	268	3,328	1,417	2,302	8,724

1930.

### RECORD OF CARCASSES TOTALLY OR PARTIALLY CONDEMNED.

Abattoir	CATTLE.				CALVES.				SHEEP.				SWINE.			
	Complete Carcases	Part Carcases	Heads	Internal Organs	Complete Carcases	Part Carcases	Heads	Internal Organs	Complete Carcases	Part Carcases	Heads	Internal Organs	Complete Carcases	Part Carcases	Heads	Internal Organs
Carluka, -	53	40	13	117	12	2	...	29	2	7	...	12	6	47	55	78
Douglas, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Forth, -	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...
Lesmahagow,	2	30	3	67	7	...	...	...	...	...	...	14	...	...	...	...
Total, -	55	71	17	186	19	2	...	29	2	7	...	26	6	47	55	78

The following table gives a record of the animals slaughtered at the undermentioned slaughter-houses:—

1930.

RECORD OF ANIMALS KILLED.

Slaughter-house	Bulls	Bullocks	Heifers	Cows	Calves	Sheep	Swine	Totals
Abington, - - - ...		60	13	...	1	236	12	322
Carnwath, - - - ...		92	12	...	...	185	8	297
Carstairs Junction, 7	129	8	9	...	196	46	395	
Crawford, - - - ...		65	...	...	203	44	312	
Douglas Water, - ...		61	35	...	150	...	246	
Leadhills, - - - ...		4	4	9	...	65	...	78
Total, - - - 7	407	72	18	1	1,035	110	1,650	

CONDEMNATIONS.

Nil.

Emergency Slaughter, - Cows passed, 4.  
 Cows condemned, 2.  
 Cow partially condemned, 1.  
 Calf passed, 1.  
 Cow liver condemned, 1.  
 Bull partially condemned, 1.  
 Sheep condemned, 2.  
 Sheep partially condemned, 2.  
 Stirk passed, 1.

Offensive Trades.

Two businesses are conducted under this category in the Upper Ward District. These are (1) knacker's yard at Whitelees, Lanark; and (2) bone-degreasing plant at Braidwood.

No complaints were received during the past year in respect of either business.

COUNTY OF LANARK  
UPPER WARD AREA

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*Midwives (Scotland) Act, 1915*

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FOURTEENTH  
ANNUAL REPORT

BY THE  
MEDICAL OFFICER OF HEALTH  
1930

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*The Medical Officer of every Local Authority shall report annually to that Authority of the administration of the Act within the District of that Local Authority, and he shall transmit a copy of such report to the Central Midwives Board and to the Local Government Board for Scotland.—Section 23.*

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STAFF.

**Administrative Officer.**

J. HUME PATTERSON, F.R.F.P.S.(G.), D.P.H.

**Executive Officer and Inspector of Midwives.**

ALEXANDER FRASER, M.D., D.P.H.

**Nurse Health Visitors and Assistant Inspectors of Midwives.**

*(All hold C.M.B. Certificate.)*

ANNIE S. AITKEN.

JANET LINDSAY.

HELEN M'GREGOR.

*Practising Midwives.*—9 midwives notified their intention to practise in the Upper Ward District.

These midwives are in *bona-fide* practice, and certified under the Act, though, however, many of them seldom practise by themselves, preferring to attend chiefly on doctor's cases.

*Attendances at Confinement.*—The total number of births allocated to the District amounted to 808.

855 births were notified, of which 822 were live births, and 33 still-births. From these notifications it was found that in 766 cases a medical practitioner was in attendance, in 88 a certified midwife, and in 1 an uncertified midwife. The percentage of births registered in the District which was attended by certified midwives was 10·8.

*Still-births.*—In the Upper Ward District 33 still-births were notified. In 31 cases a medical practitioner was in attendance, and in 2 cases a certified midwife.

*Inspection of Midwives.*—The routine inspections made during the year showed that the personal conditions were satisfactory in 6 cases and fair in the remainder.

*Puerperal Septicæmia.*—During the year 6 cases of this disease were notified by the medical practitioners in attendance. Four of these cases were removed to the District Hospital, Roadmeetings, while 2 were treated at home.

*Ophthalmia Neonatorum.*—During the year 3 cases were notified by the medical practitioners in attendance.

*Medical Assistance.*—2 notifications of the calling in of medical assistance were received during the year. Delayed labour, 2.

*Liability to be a Source of Infection.*—1 notification of exposure to infection was received from a midwife.

*Form of having laid out a Dead Body.*—No notifications were received.

*Notification of Death.*—No notifications were received.

*Offences.*—Nil.

## Infectious Diseases Hospital and Sanatorium, Roadmeetings.

## Annual Report, 1930.

*Resident Physician*—EFFIE S. STEPHEN, M.B., Ch.B., D.P.H.*Matron*—MISS RAMSAY.

## INFECTIOUS DISEASES HOSPITAL.

Admissions (as notified) and discharges during 1930, with the number in hospital at the beginning and end of the year.

DISEASE.	In Hospital		Admitted.		DISCHARGED.				Remaining	
	1st Jan 1930.				Recovered.		Died.		in Hospital	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Scarlet Fever, - -	1	2	81	87	64	66	1	0	17	23
Diphtheria, - -	7	10	68*	74	64	74	1	3	10	7
Typhoid and Paratyphoid Fever, - -	—	—	5	8	5	7	0	1	—	—
Pneumonia, - -	—	—	12	12	9	8	2	4	1	—
Puerperal Sepsis, - -	—	1	—	5	—	6	—	—	—	—
Erysipelas, - -	—	—	—	3	—	2	—	1	—	—
Measles, - -	—	—	4	4	4	4	—	—	—	—
Others, - -	—	—	3	27	3	27	—	—	—	—
	8	13	173	270	149	194	4	9	28	30
	21		393		343		13		58	
	414				414					

\*3 Readmissions.

These admissions include 4 cases from the Middle Ward Area, 59 from the Burgh of Lanark, 5 from the Burgh of Biggar, and 24 members of staff who were warded with minor and other ailments.

At the beginning of 1930, only 21 cases were in residence. During the year 393 were admitted making a total of 414. Of these 343 were discharged, recovered, or improved, 13 died, and 58 were in hospital at the end of the year. The majority of admissions were cases of scarlet fever and diphtheria.



The number of admissions from all diseases was greatest in the month of December, the total for the month being 53.

The lowest number of admissions occurred in June, the total being 16.

The greatest number of patients admitted in one day was 7.

The average monthly rate of admission was 32.

The average duration of residence of all cases discharged was 37.91 days; of all recovered cases, 35.7 days; and of all fatal cases, 4.8 days.

*The Fatality Rate* calculated on all cases discharged was 3.1 per cent.

### Scarlet Fever.

3 cases were in hospital on January 1st, 1930. During the year 168 were admitted. In 8 cases the diagnosis was revised, and 2 other cases suffering from diphtheria developed scarlet fever. Of these 165 cases, 124 were discharged well, 1 died and 40 were in hospital on 31st December, 1930.

*Removal to Hospital.*—Was carried out in 89.6 per cent. of the cases in the first week of illness, 5.6 per cent. in the second week, and 4.8 per cent. in the third week or later.

*The Average Day of Disease* of all cases was 4.1 days.

*The Average Duration of Residence* of all cases was 44.8 days.

*Type of Disease.*—102 or 81.6 per cent. of the total cases discharged were classified as mild; 15 or 12 per cent. as moderately ill; and 8 or 6.4 per cent. as very severe.

In the later group 1 septic case died.

*The Fatality Rate* as calculated on the discharges was 0.8 per cent.

*Corrected Diagnoses.*—The diagnosis was revised in 8 cases. These were:—Chickenpox, 1; doubtful, 2; erythema, 1; gastro-enteritis, 1; negative, 1; teething, 1; septic sores, 1.

COMPLICATIONS.—33.6 per cent. of the cases discharged had 1 or more complications.

*Glands.*—13 or 10.4 per cent. showed glandular enlargement. Non-suppurative adenitis, 12; suppurative adenitis, 1.

*Ear.*—12 or 9.6 per cent. developed otitis media. 1 was moist on discharge.

*Nose.*—15 or 12 per cent. developed rhinitis.

*Heart.*—3 or 2.4 per cent. developed cardiac complications. 2 showed arrhythmia, 1 organic disease.

*Joints.*—2 developed mild arthritis.

*Kidney.*—1 case developed nephritis, 4 slight albuminuria.

*Lungs.*—Broncho-pneumonia, 1.

*Sepsis.*—Sores, 4; abscesses, 3.

*Skin.*—Urticaria (non-serum), 1.

*Others.*—Epistaxis, 1; quinsy, 1; secondary rash, 2; tonsillitis, 4; swab positive, 24.

*Other conditions present on admission and not related to the attack of Scarlet Fever.*—Abdominal tuberculosis, 1; burn, 2; chronic rhinitis, 1; impetigo, 4; infantile paralysis, 1; pulmonary tuberculosis, 1; vaginitis, 1.

Scarlet fever antitoxin was given to 24 cases. Of these 5 were mild, 12 moderately ill, and 7 severe. The average dose was 13 c.c. 3 cases developed serum rashes. 14 or 58 per cent. developed one or more complications.

*Diphtheria Antitoxin.*—Serum was given to 25 cases. The average dose was 10,800 units.

*Mixed Infections.*—Measles, 1.

*Return Cases.*—28 days being taken as the period within which a case is regarded as "return," two cases infected two others, the latter being 4 days and 21 days respectively after the former's discharge. The two first cases were clean on discharge and had had no complications during their stay in hospital.

### Diphtheria.

17 cases of diphtheria were in hospital on 1st January, 1930. 142 were admitted as such, 33 were wrongly diagnosed and 1 other proved to be suffering from diphtheria. Of these 127 patients, 106 were discharged recovered, 4 died, and 17 were in hospital on 31st December, 1930.

*Removal to Hospital* was carried out within the first 3 days in 49.1 per cent. of all cases. In the fatal cases the average duration of illness prior to admission was 6.5 days.

*The Average Day of Disease* on admission of all cases was 4.2 days.

*Duration of Residence.*—The average duration of residence of all cases was 40.7 days; of recovered cases, 42.1 days; and of fatal cases, 4.5 days.

#### TYPE OF DISEASE—

*Faucial Diphtheria.* In 91 cases the faucial region of the throat was affected.

*Mild.*—55 cases were of the mild type, 4 cases had serum prior to admission. The average amount of serum given in hospital was 11,700 units. 2 cases had also scarlet fever antitoxin.

*Complications and Sequelæ.*—Adenitis, 2; hæmaturia, 1; mastitis, 1; rhinitis, 1; serum rash, 2; v.s. murmur, 1.

*Mixed Infection.*—Scarlet fever, 1; German measles, 1.

*Moderate.*—24 cases were moderately ill, 3 had serum prior to admission. The average amount of serum given in hospital was 26,500 units.

*Complications.*—Albuminuria, 1; arrhythmia, 2; quinsy, 1; serum rash, 4.

*Mixed Infection.*—Scarlet fever, 1.

*Severe.*—12 cases were of the severe type. The average amount of serum given was 54,500 units. 2 cases also received scarlet fever antitoxin.

*Complications.*—Adenitis, 1; albuminuria, 2; arrhythmia, 1; epistaxis, 1; rhinitis, 1; serum rash, 4.

**LARYNGEAL DIPHTHERIA.**—1 case was admitted with measles and croup was also proved to have laryngeal diphtheria.

**FAUCIAL AND LARYNGEAL DIPHTHERIA.**—Fauces and larynx were involved in 10 cases, 3 being moderately ill, and 7 severe including 3 fatal cases.

The average dose of serum for moderate cases was 23,000 units.

The average amount of serum for severe cases was 52,000 units.

*Complications and Sequelæ.*—Albuminuria, 4; cardiac paralysis, 2; otitis media, 2; tracheotomy, 3.

**FAUCIAL AND NASAL DIPHThERIA.**—Fauces and nose were involved in 8 cases including 1 fatal case. 3 were moderately ill; 5 were severe. The average amount of serum given was 60,000 units.

*Complications.*—Adenitis, 1; albuminuria, 2; cardiac paralysis, 1; palatal paralysis, 1; serum rash, 2.

Parke Davis' serum was used throughout the year.

**OTHER CONDITIONS PRESENT ON ADMISSION.**—Blepharitis, 1; burns, 2; chronic bronchitis, 1; impetigo, 2; mental defective, 1; pulmonary tuberculosis, 1; tubercular abdomen, 1; tubercular rib, 1.

**CORRECTED DIAGNOSIS.**—Bronchitis, 2; influenza, 2; quinsy, 1; swab positive, 23; tonsillitis, 5.

**FATALITY RATE.**—4 cases or 3·6 per cent. of the clinical cases were fatal. Of the 4 cases, 1 was male, 3 females. The average age was 5 years. The average duration of illness prior to admission was 6·5 days. The average residence in hospital was 4·5 days. The average amount of serum given was 55,000 units.

1 case was faucial and nasal, the other 3 were faucial and laryngeal.

### Enteric Fever.

Of 13 cases notified as enteric fever, the diagnosis was revised in 2; 1 other case proved to be enteric fever. All 12 cases recovered.

*Removal to Hospital* was carried out during the first week of illness in 3 cases, or 25 per cent., during the second week in 2 cases, or 16·6 per cent., and during the third week in 7 cases or 54·4 per cent.

*The Average Day of Disease* was 13·8 days.

*The Average Duration in Hospital* was 52·3 days.

*The Average Age* was 19·5 years.

*Sex.*—Males, 5; females, 7.

*Type of Disease.*—2 of the cases were due to *B. typhosus*, 10 to *B. paratyphosus B.* 7 were mild, 4 moderately ill, and 1 severe.

*Complications.*—Intestinal hæmorrhage, 1.

*Corrected Diagnosis.*—Tubercular meningitis, 1; tuberculous, 1.

*Others.*—1 case notified as encephalitis lethargica proved to be suffering from enteric fever.

### **Puerperal Fever.**

1 case was in hospital at the beginning of the year. 5 cases were admitted during the year. None was in residence at the end of the year. It was arranged that after the 24th November, all Upper Ward cases should be admitted to Motherwell County Hospital. All six cases recovered.

*Type of Disease.*—Mild, 2; moderate, 4.

*Average Age of patients* was 22·5 years. All were primiparæ.

*The Average Duration of Illness* of all cases prior to admission was 4·8 days.

The average duration of residence was 38·2 days.

*Complications at Birth.*—Instrumental delivery, 2; perineal tears, 3.

*Complications During the Fever.*—Albuminuria, 3; anæmia, 3; septic hand, 1.

### **Erysipelas.**

3 cases were admitted as such, all female, and were facial. 2 were mild and made good recoveries, 1 proved fatal, death occurring from general septicæmia following cellulitis of face.

### **Pneumonia.**

There were no cases in residence at the beginning of the year. During the year 24 cases were admitted as such. In 5 cases the diagnosis was revised. Of the 19 cases, 12 recovered, 6 died, and 1 was in hospital at the end of the year. Of the 18 discharged 6 were cases of pneumonia complicating measles.

*Classification.*—Acute lobar pneumonia, 12; broncho-pneumonia, 4; influenzal pneumonia, 1; unresolved, 1.

*Type of Disease.*—Mild, 3; moderate, 6; severe, 9.

*Situation of the Lesion in Lobar Cases:*—

Double—1.

Right—base, 4; apex, 1; middle, 1; whole, 2. Left—base, 2; whole, 1.

*The Average Day of Disease* of all cases on admission was 5.2 days; of recovered cases 5 days and of fatal cases 5.3 days.

*The Average Duration of Residence* of all cases was 23.7 days; of recovered cases 33.5 days and of fatal cases 4.5 days.

*The Fatality Rate* was 33.3 per cent.

*Complications.*—Adenitis, 2; albuminuria, 1; asthma, 1; empyema, 1; otitis, 4; stomatitis, 1; premature labour, 1.

*Corrected Diagnosis.*—Acute bronchitis, 3; cardiac disease, 1; sub-diaphragmatic abscess, 1.

### Measles.

8 cases were admitted as such during the year. Of these, 6 were adults and 2 children. The average age was 15 years. 4 were males, 4 females. All recovered.

*The Average Duration of Illness* was 8 days.

*The Average Duration of Residence* was 25 days.

7 were mild; 1, a boy of 6, was severe. He was found to be also suffering from diphtheria.

Other 6 cases were admitted with pneumonia complicating measles. These have been considered under pneumonia. Of these 5 recovered and 1 died.

1 child admitted with scarlet fever was verified as scarlet fever and measles.



### Ophthalmia Neonatorum.

2 cases were treated. 1 was mild and made a good recovery. The other was severe and resisted treatment. Ulceration of cornea followed and it was transferred to the County Hospital, Motherwell.

### MISCELLANEOUS CASES DISCHARGED DURING 1930.

	Recovered.	Died.
Asthma, - - - - -	1	—
Bronchitis, - - - - -	1	—
Chickenpox, - - - - -	1	—
Chill, - - - - -	1	—
Gallstones, - - - - -	1	—
Housemaid's Knee, - - - - -	1	—
Impetigo, - - - - -	2	—
Infantile Diarrhoea, - - - - -	1	—
Influenza, - - - - -	1	—
Injury to Knee, - - - - -	1	—
Jaundice (catarrhal), - - - - -	1	—
Otitis Media, - - - - -	1	—
Pelvic Abscess (Transferred to Stonehouse).		
Pulmonary Embolism, - - - - -	1	—
Pyelitis, - - - - -	1	—
Rheumatism, - - - - -	1	—
Septic Hand, - - - - -	1	—
Sore Throat, - - - - -	1	—
Tonsillitis, - - - - -	9	—

### SANATORIUM.

#### Admissions and Discharges.—

In Residence 1st Jan., 1930.	Admitted during 1930.	Discharged during 1930.	Died during 1930.	In Residence 31st Dec., 1930.
21	45	38	9	19
		47		

3 patients were re-admitted. 1 completed the second period of residence, 2 were in hospital at the end of the year. Statistics deal with the remaining 46 patients discharged or who died during the year. Of these cases 31 were pulmonary, 7 non-pulmonary, 3 tuberculised, 5 non-tuberculous.

## Places of Residence—

Auchenheath	1	Kirkfieldbank.	1
Braidwood	1	Kirkmuirhill	2
Carlisle	5	Lamington	1
Carstairs	2	Law	2
Coalburn	3	Lesmahagow	4
Douglas Water	1	Symington	1
Douglas West	2	Thankerton	1
Forth	4	Salsburgh	1
Busby	1	Shotts	1
Cadzow	1	Tollcross	1
East Kilbride	1	Burgh of Lanark	8
Hamilton	1		

*Age and Sex.*—The cases discharged are shown in the following table classified according to age and sex, and according to age groups for both sexes. In each age group the number of pulmonary, non-pulmonary, tuberculised and non-tuberculous cases is shown :—

Periods.	Males.	Females.	T.		Non		Non		T.
					Pul.	Pul.	Tub.	T.B.	
- 5	3	1	4	Pre-school age	1	2	—	1	4
- 10	1	2	3	School age	—	2	—	1	3
- 15	2	2	4		—	2	1	1	4
- 20	1	2	3	Adolescence	2	1	—	—	3
- 25	5	6	11		10	—	—	1	11
- 30	4	2	6	Early Maturity	5	—	1	—	6
- 35	2	4	6		5	—	—	1	6
- 40	4	0	4		4	—	—	—	4
- 45	1	1	2		1	—	1	—	2
- 50	—	—	—	Late Maturity	—	—	—	—	—
- 55	—	—	—		—	—	—	—	—
- 60	2	—	2		2	—	—	—	2
- 65	—	—	—		—	—	—	—	—
- 70	1	—	1		1	—	—	—	1
	25	21	46		31	7	3	5	46

## Duration of Residence.

	Maximum.	Minimum.	Average.
Pulmonary, - - -	425	3	182
Non-Pulmonary, - - -	749	14	310
Tuberculised, - - -	109	56	82
Non-Tuberculous, - - -	184	4	74

*Transfers to other Institutions.*—Motherwell County Hospital, 1.

*Transferred to Infectious Diseases Hospital.*—Diphtheria, 1; sub-diaphragmatic abscess, 1.

### Pulmonary Cases discharged—

31.

*Duration of Illness* recorded at time of admission and stated in monthly periods was as follows:—

Classification on Admission.	1-3	3-6	6-12	12-18	18-24	Over 24	T.
GI,	1	3	1	1	—	—	6
GII,	1	1	1	1	—	4	8
GIIL,	2	2	4	1	—	8	17

*Duration of Illness of Fatal Cases.*—7 cases died and the duration of illness from the date of onset to that of death was thus recorded in monthly periods:—

1-3	3-6	6-12	12-18	18-24	Over 24
1	1	2	—	—	3

### General Results of Treatment—

Classification on Admission.	Very much Improved.	Improved.	Stationary.	Worse.	Died.
GI,	5	—	1	—	—
GII,	6	1	1	—	1
GIIL,	2	5	2	1	6

### Sputum Examinations—

Classification on Admission.		Positive.	Negative.	No Spit.
GI,	- -	1	5	—
GII,	- -	6	3	—
GIIL,	- -	12	3	1

### Non-Pulmonary Cases discharged—

7.

7 cases were discharged during the year. They were classified as follows:—

Abdomen, 2; cervical adenitis, 2; dactylitis, 1; tibia, 1; tibia and sternum, 1.

*Duration of Illness* recorded at time of admission and stated at monthly periods was as follows :—

1-3	3-6	6-12	12-18	18-24	Over 24	T.
3	—	3	—	—	1	7

One case of abdominal tuberculosis died—

*General Results of Treatment—*

Very much Improved.	Improved.	Stationary.	Worse.	Died.
6	—	—	—	1

**Tuberculised—**

3.

1 child and 2 adults have been included in this group. All 3 were notified as pulmonary tuberculosis.

**Non-Tuberculous Cases—**

5.

Cerebral tumour, 1; debility, 1; pneumonia, 1; pulmonary fibrosis, 1; sub-diaphragmatic abscess, 1.

*Other Infections.*—1 male patient developed diphtheria and was transferred to the diphtheria pavilion.

*X-Ray Examinations.*—16 patients were x-rayed at Motherwell County Hospital.

**OPERATIONS AND CONSULTATIONS.**

Mr Duff,	Mastoidectomy,	...	...	2
	Opening Pelvic Abscess,	...	...	1
	Removal of plate from site of old fracture,	...	...	1
	Opening of sub-diaphragmatic abscess,	...	...	1
	Empyema,	...	...	1
	Consultations,	...	...	2
Dr. Adam,	Incision of Drum,	...	...	1
	Consultation,	...	...	1
Dr. Mortimer,	Consultations,	...	...	2
Dr. Reid,	Consultations,	...	...	4

### The Staff.

*The Indoor Staff* on 31st December, 1930, included 1 resident physician, 1 matron, 3 sisters, 5 staff nurses, 12 probationers, and 16 maids.

*The Outdoor Staff* consisted of 1 engineer-fireman, 1 fireman, 1 chauffeur, 1 gardener, 1 assistant-gardener, and 1 clerkess and telephone operator.

During the summer months a temporary worker was employed as gardener and to relieve for holidays.

*Lectures.*—From October till April lectures and demonstrations were given on elementary anatomy and physiology, hygiene and elementary theory and practice of nursing. 5 nurses passed the Preliminary Examination and were transferred to Motherwell County Hospital to complete their training.

*Staff Illnesses.*—19 nurses and 6 maids were warded for the following ailments:—

Bronchitis, ... ..	1	Otitis media.... ..	1
Diphtheria, ... ..	2	Pleurisy, ... ..	1
Dislocation of Elbow,	1	Rheumatism,... ..	1
Erysipelas, ... ..	1	Scarlet Fever, ... ..	2
Influenza, ... ..	2	Sore Throat. ... ..	1
Injury to Knee, ... ..	1	Swab Positive, ... ..	1
Jaundice, ... ..	1	Tonsillitis, ... ..	8
Wound of Arm, 1			

The sick staff lost 547 working days.

*Inoculations.*—10 nurses were vaccinated with T.A.B. vaccine against the enteric group of diseases. 16 of the staff had the Shick Test performed. 4 were positive and were immunised. 16 had the Dick Test performed and 2 positives were immunised.

### Ambulance Work.

				Miles.
ADMISSIONS, -	Infectious Diseases Hospital,	-	-	6,560
	Sanatorium, - - -	-	-	458
DISCHARGES, -	Infectious Diseases Hospital,	-	-	4,206
	Sanatorium, - - -	-	-	335
OTHERS, - - - - -	- - - - -	-	-	3,184
				<hr/> 14,743 <hr/>

### **Grounds and Buildings.**

A tennis court was laid down for the benefit of the staff and was ready for use in May.

Minimax Fire Escapes were installed in both Sanatorium and Infectious Hospital Homes. A Dennis Portable Fire Pump was purchased.

The Sanatorium building was redecorated during the summer, and storm doors were made for the verandah.

A wireless set was installed in the Sanatorium Home and Pavilion through the kindness of Carl Luke friends. 2 loud speakers have been provided and ear-phones for each patient.



## Report of the Sanitary Inspector.

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### HOUSING.

**BUILDING BY-LAWS.**—To comply with the request of the Department of Health in so far as Sanitary Inspectors are called upon to furnish an Annual Report, is not always an easy task when the usual routine work has to be kept up-to-date. It is doubly difficult on this occasion, having regard to the coming into force of the Local Government (Scotland) Act, and with the readjustment of offices, the work has naturally being interrupted. For instance, the appointment of a County Inspector of Buildings necessitated the transference of the Plans Register to headquarters, and, in consequence, bereft of these particulars, I cannot state with any degree of accuracy the number and type of plans dealt with by me.

In all 228 inspections were made of new buildings and 96 smoke tests were applied to house drainage systems. In addition, numerous smoke tests were applied to drains of existing buildings.

*State-aided Housing Schemes.*—The appended table shows the progress of the various housing schemes completed or being undertaken by the Local Authority under the subsidy schemes approved by the Department of Health. In the latter part of the year under report the County Council resolved to erect additional houses, as follows :—

*Forth.*—16 two-apartments; 32 three-apartments.  
In all 48 houses.

*Biggar.*—4 two apartments; 8 three-apartments.  
In all 12 houses.

It is anticipated that the erection of these 60 houses will proceed early in the year 1931.

NOTE OF HOUSES BUILT AND PROPOSED TO BE BUILT BY THE LOCAL  
AUTHORITY UNDER THE VARIOUS SCHEMES.

Situation.	Houses Built under Addison (1919) Scheme.	Houses built under Scheme for Improve- ment of Insanitary Areas	Houses built under Chamber- lain (1923) Scheme.	Houses built under Housing (Finan- cial Pro- visions) Act, 1924.	Houses proposed or in course of erection under the Housing (Financial Provisions) Act, 1924.	Total Number of Houses Built, proposed or in course of Erection.
Auchenheath, -	20	...	...	...	...	20
Blackwood, -	52	...	...	16	...	68
Coalburn, - -	84	32	...	12	...	128
Lesmahagow, -	106	...	...	40	...	146
Douglas, - -	44	...	...	12	...	56
Ponfeigh and Rigside, - -	42	...	24	60	...	126
Forth, - -	58	40	...	40	48	186
Carluke, - -	102	28	...	160	...	290
Law, - - -	46	...	...	32	...	78
Carstairs, - -	14	...	...	24	8	46
Carstairs Junction,	50	...	...	60	...	110
Carnwath, - -	...	...	12	24	...	36
Kirkfieldbank, -	...	...	...	8	...	8
Pettinain, - -	...	...	...	8	...	8
Thankerton, -	...	...	...	8	...	8
Crawford, - -	...	...	...	8	...	8
Glespin, - -	...	...	...	16	...	16
Abington, - -	...	...	...	6	...	6
Braidwood, - -	...	...	...	8	...	8
Biggar, - -	...	...	...	12	12	24
Symington, -	...	...	...	8	...	8
Totals, -	618	100	36	562	68	1,384

*Housing (Inspection of District) Regulations, 1928.*—The number of houses inspected during the year was 1,167. Of this number 50 were considered to be so dangerous or injurious to health as to be unfit for human habitation.

Ten representations, relating to 50 houses, were made to the Local Authority with a view to the making of Closing Orders.

The number of dwelling-houses in respect of which Closing Orders were made was 50.

Two hundred and sixty-one dwelling-houses, the defects in which were remedied without either the making of Closing Orders or the serving of notices under Section 3 (1), Housing (Scotland) Act, 1925, were dealt with.

With reference to the dwelling-house situated at Braidwood, Carluke, which was the subject of a Closing Order in 1927, I have to state that the owner lodged plans and specifications, together with an application for assistance under the Housing (Rural Workers) Act, 1926, for the renovation of the house, including the introduction of water and sanitary convenience. The Committee approved of the plan, and on completion of the work which rendered the house habitable in all respects the Closing Order was determined.

*Housing (Scotland) Act, 1925.*—The number of cases where intimations were given under Section 20 (1) as to insufficient water-closet accommodation :—

- (a) cases where requirement complied with by owners, 60 water-closets ;
- (b) cases where works carried out by Local Authority after failure of owner to do so, nil ; and
- (c) cases still pending, 11.

No houses of two apartments were erected during the year.

*Housing, Improvement of Insanitary Areas Schemes.*—The following table shows the progress made as at 31st December, 1930, with the closure and demolition in the years 1925, 1926, 1927, 1928, 1929, 1930.

*Parish of Carluke.*

	1925	1926	1927	1928	1929	1930	Number of Houses Vacated					Number still Occupied	Number of Houses Demolished	Number of Houses Reconstructed
25 Clyde Street, -	-	1	...	...	...	...	1925	1926	1927	1928	1929	1930	1	...
Heather Row, -	-	6	...	...	...	...	6	...	...	...	...	...	6	...
66-70 Chapel Street, -	-	3	...	...	...	...	1	...	1	...	...	...	...	...
82-86 Chapel Street, -	-	3	...	...	...	...	2	...	1	...	...	...	...	...
119-123 Carnwath Road, -	-	3	...	...	...	...	3	...	...	...	...	...	...	...
Engine Row, -	-	7	...	...	...	...	7	...	...	...	...	...	7	...
Mauldsie Row, Law, -	-	2	...	...	...	...	2	...	...	...	...	...	2	...
Houses at Braidwood, -	-	...	4	...	...	...	...	2	2	...	...	...	4	...
House at Braidwood, -	-	...	1	...	...	...	...	...	1	...	...	...	...	1
Mount Vernon, Orchard Street, -	-	...	...	...	1	...	...	...	...	...	1	...	...	...
Kilncadzow, -	-	...	...	...	4	...	...	...	...	...	3	1	...	...
Kale Row, Clyde Street, -	-	...	...	...	...	3	...	...	...	...	...	2	...	...
School Lane, -	-	...	...	...	...	3	...	...	...	...	...	3	...	...

*Parish of Carnwath.*

Haywood, -	-	55	...	...	...	...	20	26	6	...	...	...	52	3
Bank Row, Forth, -	-	6	...	...	...	...	5	...	1	...	...	...	6	...
Braehead (single house), -	-	...	...	1	...	...	...	...	...	1	...	...	...	...
Liddle's Buildings, Carnwath, -	-	...	...	...	...	3	...	...	...	...	1	...	1	...
New Row, Forth, -	-	...	...	...	...	9	...	...	...	...	...	9	...	...
Red Row, Wilsontown, -	-	...	...	...	...	5	...	...	...	...	...	5	...	...

*Parish of Carstairs.*

Haininghead, -	-	1	...	...	...	...	...	1	...	...	...	...	...	...
Eastend, Carstairs Village, -	-	...	...	6	...	...	...	...	...	3	3	...	6	...
Avenue Road, do., -	-	...	...	3	...	...	...	...	...	3	...	...	3	...
Church View, do., -	-	...	...	1	...	...	...	...	...	...	...	1	...	...
Forrest's Buildings, do., -	-	...	...	3	...	...	...	...	...	2	...	1	...	...
Smithy Row, do., -	-	...	...	2	...	...	...	...	...	2	...	...	...	...

OPPOSITE LESMAHAGOW COTTAGES.															
West Lampits, Carstairs Junction,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ravenstruther, - - - - -	...	...	...	...	2	...	...	...	...	...	...	...	2	1	8
<i>Parish of Crawfordjohn.</i>															
Overtoun Cottage, - - - - -	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...
<i>Parish of Douglas.</i>															
New Row, Rigside, - - - - -	...	...	...	10	...	...	...	...	...	...	...	...	...	...	10
Matassa's Buildings, Douglas, - - - - -	...	...	...	...	...	...	...	...	4	...	...	...	...	...	4
<i>Parish of Lanark.</i>															
Bankhead and Kingson's Knowe, Lanark, ...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	6
<i>Parish of Lesmahagow.</i>															
Auchenbegg Row, Coalburn, - - - - -	...	...	...	6	...	...	...	...	...	...	...	...	...	...	6
Bankend Row, Coalburn, - - - - -	...	...	...	41	...	...	...	...	9	10	...	...	...	...	40
Sawdust Row, Coalburn, - - - - -	...	...	...	4	...	...	...	...	6	...	...	...	...	...	4
Brooketsbrae, Lesmahagow, - - - - -	...	...	...	6	...	...	...	...	...	...	...	...	...	...	6
Old Schoolhouse, Kirkfieldbank, - - - - -	...	...	...	...	...	3	...	...	...	...	...	...	...	...	3
Littlegill Row, Auchenheath, - - - - -	...	...	...	...	16	...	...	...	...	...	...	...	...	...	...
Longlea Terrace, Auchenheath, - - - - -	...	...	...	...	25	...	...	...	...	...	...	...	...	...	...
Engine Row, Auchenheath, - - - - -	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...
Townfoot Cottages, Auchenheath, - - - - -	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...
Dublin, Kirkfieldbank, - - - - -	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...
Main Street, Kirkmuirhill, - - - - -	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...
Main Street, Kirkfieldbank, - - - - -	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...
Hunter's Buildings, Kirkfieldbank, - - - - -	...	...	...	...	...	...	...	8	...	...	...	...	...	...	...
Summerhill, Blackwood, - - - - -	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...
<i>Parish of Symington.</i>															
Townfoot, Symington, - - - - -	...	...	...	...	...	2	...	...	...	...	...	...	1	1	...
Total, - - - - -	143	11	55	29	14	50	68	37	33	44	36	12	73	176	12
										230					
										302					

*Housing (Scotland) Act, 1925, and Housing, Town Planning, &c. (Scotland) Act, 1919.*—A careful survey of all drainage and scavenging districts in the area was made with a view to the introduction of modern sanitary conveniences to those properties lacking same. In consequence the sanitary conveniences introduced in this manner were numerous. The following tabular statement shows in detail the properties so improved and indicates that 109 water-closets and 101 sinks were introduced.

## TABULAR STATEMENT.

Parish.	Locality.		Number of Tenants.	Water-closets.	Baths.	Wash-hand Basins.	Sinks.	Sculleries.	Wash-houses.	Coal Cellars.
Biggar,	Percilands Farm, -	-	1	1	...	...	1	1	...	1
Carluke,	Pond Cottage, -	-	1	1	1	1	1	1	1	1
	James Street, -	-	1	1	1	1	1	1	...	...
	Roadmeetings, -	-	2	2	...	...	2	2	...	...
Carstairs,	Ravenstruther, -	-	1	...	...	...	1	1	...	...
	Recreation Ground, Car-									
	stairs Junction, -	-	...	2	...	2	1	1	...	...
	Greenview, Carstairs Vil-									
	lage, -	-	1	1	...	...	...	...	...	...
	No. 9 Smallholding. Car-									
	stairs Junction, -	-	1	1	1	1	1	1	1	...
	Columbia Farm, -	-	1	1	1	1	1	1	1	...
Carnwath,	Wilsontown Cottage, -	-	1	1	1	1	1	1	1	...
	Main Street, Forth, -	-	3	3	...	...	3	3	3	...
	Bank Farm, Carnwath, -	-	1	1	...	...	...	...	...	...
	Sawmill House, -	-	1	1	...	...	...	...	...	...
	Forth Garage, -	-	1	1	...	...	...	...	...	...
	Crooklands Farm, Hay-									
	wood, -	-	1	1	...	...	...	...	...	...
	Robertson's Cottages, South									
	Back Row, -	-	4	4	...	...	...	...	...	...
	North Back Row, -	-	5	3	...	...	...	...	...	...
	Main Street, -	-	2	2	...	...	2	2	...	..
<i>Carry forward.</i>				28	27	5	7	15	15	7 2



## TABULAR STATEMENT—(Continued).

Parish.	Locality.	Number of Tenants.	Water-closets	Baths.	Wash-land Basins.	Sinks.	Sculleries.	Wash-houses.	Coal Cellars
	<i>Brought forward,</i>	28	27	5	7	15	15	7	2
<i>Carnwath—Contd.—</i>									
	South Back Row (Lyon's Property), - - -	2	2	...	...	...	...	...	...
	Main Street, - - -	4	3	...	...	3	...	...	...
	Masonic Lodge Property,	1	1	...	...	1	...	...	...
	Headinns Farm, - -	1	1	...	...	...	...	...	...
	M'Lean's Property, -	2	2	...	...	...	...	...	...
	Steel's Cottage, - -	1	1	...	...	1	...	...	...
	Smithy Property, - -	1	1	...	...	...	...	...	...
	Robertson's Cottage, Main Street, - - -	1	1	...	...	1	...	...	...
Crawford,	Over Fingland, - -	1	1	...	...	1	1	...	...
Douglas,	Carmacoup, Glespin, -	3	3	...	...	3	3	...	...
Lanark,	Smyllum Cottages, - -	3	3	...	...	3	3	3	...
	Hyndford Inn, - -	2	2	...	...	2	...	...	...
Libberton,	Muirhouse Farm Cottages,	3	3	...	...	3	3	...	...
Lesmahagow,	Bogside Farm, - -	1	1	1	1	1	1	...	...
	Coalburn—								
	Bellfield Cottage,	1	1	1	1	1	...	...	...
	Railway Terrace, -	18	18	...	...	18	...	...	18
	Middlefield, - -	1	1	...	...	1	...	...	...
	Braehead, - -	1	1	...	...	...	...	...	...
	Sunnybrae, - -	1	1	1	1	...	...	...	...
	Lesmahagow—								
	Birkwood Mains, -	1	1	1	1	1	...	...	...
	Sandknowe, - -	1	...	1	...	...	...	...	...
	Highmains, - -	1	1	...	...	1	...	...	...
	Blackwood—								
	Woodend, - -	1	1	...	...	1	1	...	...
	Heathfield, - -	1	1	...	...	1	1	...	...
	Welfare Hall, - -	1	1	...	1	1	...	...	...
	<i>Carry forward,</i>	82	79	10	12	59	28	10	20

## TABULAR STATEMENT—(Continued).

Parish.	Locality.	Number of Tenants.	Water-closets.	Baths.	Wash-hand basins.	Sinks.	Sculleries.	Wash-houses.	Coal-cellars.	
	<i>Brought forward,</i>	82	79	10	12	59	28	10	20	
<i>Lesmahagow—Contd.—</i>										
	Auehenheath—									
	Gardener's House,	1	1	1	1	1	1	...	...	
	Auehenheath House—									
	Knowetop, - -	6	...	...	...	6	...	3	6	
	Crossford—									
	Upper Meadowbank,	8	4	...	...	8	...	...	...	
	Nethanfoot, - -	9	4	...	...	9	...	...	...	
	Tillietudlem Cottage,	2	2	...	...	2	2	...	...	
	Springvale, - -	1	1	...	...	2	...	...	...	
	Clydegrove, - -	1	1	...	...	1	...	...	...	
	Holm Road, - -	1	1	...	...	1	...	...	...	
	Stonelea Cottage,	-	1	1	...	1	...	...	...	
	Boathouse, - -	1	1	...	...	1	...	...	...	
	Honeybank, - -	2	1	...	...	...	...	...	...	
	Kirkfieldbank—									
	Capie's Buildings, -	2	1	...	...	...	...	...	...	
	Stein's Buildings, -	4	3	...	...	1	...	...	...	
	Rural—									
	Hawthorn Cottage,									
	Cairnhouses, - -	1	1	1	1	1	1	...	...	
Libberton,	Muirhouse Farm									
	Cottages, - -	3	3	...	...	3	2	...	...	
Symington,	Townfoot, - -	1	1	1	1	1	...	...	...	
	Townhead, - -	2	2	...	...	2	2	2	...	
	Townfoot Row, - -	2	2	...	...	2	2	...	...	
	Upper Ward, - -	-	130	109	13	15	101	38	15	26

The Board's circular of 1st September, 1925, called upon Sanitary Inspectors to survey the more populous areas in their districts to ascertain :—

- (1) the number of common water-closets in use, showing separately the number serving 2, 3, 4, and 5 or more tenants respectively ;
- (2) the number of houses without water supply and sinks inside the house ; and
- (3) the number of (a) dry-closets, (b) privy-middens, and (c) ash-pits, showing for each separately the number serving 2, 3, 4, and 5 or more tenants respectively.

	Carlisle.	Pontfeigh.	Carslairs Village.	Kirkfieldbank.	Carnwath.	Carslairs Junction.	Law.	Blackwood and Kirkmuirhill.	Coalburn.	Douglas.	Lesmahagow.	Crossford.	Forth and Wilsontown.	
Number of occupied houses,	-	1,484	258	134	210	231	274	393	331	400	342	643	143	419
Water closets—														
1 for each house,	-	811	255	...	67	186	...	159	149	234	165	373	50	195
Common to 2 tenants,	-	164	...	...	10	2	...	12	22	17	22	48	39	3
Do. 3 do.	-	39	...	...	2	7	...	3	24	9	10	36	...	4
Do. 4 do.	-	23	...	...	8	...	...	...	...	2	7	10	...	1
Do. 5 tenants and over,	-	3	...	...	1	...	...	...	...	1	2	4	...	...
Number of houses without water supply or sinks inside,	-	450	...	...	102	53	...	125	120	112	43	143	9	145
Number of houses with water supply and sinks inside,	-	1,034	258	...	108	178	...	268	211	288	299	500	134	274
Number of houses with baths,	-	370	91	...	19	83	...	98	98	169	34	244	7	151
Privy-middens—														
1 for each house,	-	51	3	...	50	2	...	98	26	26	32	5	2	43
Common to 2 tenants,	-	29	...	...	3	2	...	7	6	28	12	4	...	29
Do. 3 do.	-	3	...	...	6	4	...	3	4	2	3	...	...	11
Do. 4 do.	-	5	...	...	2	...	...	15	2	...	...	...	1	8
Do. 5 tenants and over,	-	6	...	...	1	...	...	4	1	...	...	...	1	...
Totals—														
Common water-closets,	-	229	...	...	21	9	...	15	46	29	41	98	39	8
Do. privy-middens,	-	43	...	...	12	8	...	29	13	30	15	4	2	48

*Reconstruction Schemes.*—With reference to the paragraph in last year's Annual Report on Railway Terrace and Tinto View Terrace, Coalburn, and the proposal to reconstruct these properties and bring them into a habitable condition to the satisfaction of the Local Authority, I have to state that the new proprietor, Mr. Charles Lennox, Lanark, submitted plans and specifications together with an application for assistance under the Housing (Rural Workers) Act, 1926. The Committee approved of the plans and specification relating to Railway Terrace and granted assistance.

Each of the 18 houses was provided with a water-closet and new earthenware sink, and general repairs were made throughout the property.

Mr. Lennox also purchased the property known as Tinto View Terrace, and at the end of the year he submitted a plan showing the proposed alterations and additions to 12 of these houses. The remaining 4 houses he undertook to demolish. The work of improvement has not yet commenced, but I learn that a start has to be made early in the year 1931. The alterations and additions include the following improvements:—To provide a water-closet and sink for each house; to rebuild the existing stairways; to strap and lath all external walls; and roughcast the front and gable walls. It is also proposed to build an additional washing-house and repair the two existing ones as well as the provision of a coal-cellar for each tenant.

*Overcrowding.*—An alleged case of overcrowding was brought to the notice of the department and on investigation it was found to be substantiated. The house referred to consisted of two apartments and was situated at Main Street, Douglas. The occupants consisted of four adults and six children. The tenant explained that he had been an applicant for a Housing Scheme house in Douglas to meet the needs of his large family, but he had been unsuccessful in his efforts to obtain one. The matter was brought to the notice of the County Clerks who let the first suitable house to him.

Another case of overcrowding at a house situated at Main Street, Lesmahagow, was brought to our notice by the Department of Health. On enquiring it was found that a two-apartment house was being occupied by two families, numbering in all four adults and five children. The sub-tenant was being temporarily accommodated on account of his eviction from a house he and his family occupied at Turfholm, Lesmahagow. An intimation was served on the tenant calling upon him to abate the overcrowding within a stated period. This intimation was complied with—the sub-tenant having found, in the interval, suitable accommodation.

*Sufficiency of Working-Class Dwellings.*—This subject has been carefully investigated by the County Medical Officer of Health during the last few years and has been the subject of several extensive memoranda to the County Council.

The Housing Committee had under consideration the erection of 150 houses at Forth and 12 at Biggar, and the County Council have resolved to erect in the meantime 48 houses at Forth and 12 at Biggar.

At the request of the County Sanitary Inspector for information relative to:—

- (1) the number of occupied houses in the district;
- (2) the number of unoccupied houses;
- (3) the number of houses occupied by members of more than one family; and
- (4) the number of houses where lodgers were kept,

a survey of the district was made when the following tabular statement was compiled:—

Parish	No. of occupied houses	No. of unoccupied houses	No. of houses with more than one family	No. of houses where lodgers are kept
Biggar, ...	597	15	3	15
Carluke, ...	2,519	51	43	212
Carmichael, ...	386	8	19	50
Carnwath, ...	1,277	31	28	125
Carstairs, ...	474	4	3	31
Covington and Thankerton, ...	124	6	—	3
Crawford, ...	313	26	11	28
Crawfordjohn, ...	142	17	4	38
Coulter, ...	100	6	—	—
Dolphinton, ...	58	1	—	4
Douglas, ...	699	30	11	90
Dunsyre, ...	37	1	—	—
Lamington, ...	69	5	—	19
Lanark, ...	502	24	27	22
Libberton, ...	115	6	—	5
Lesmahagow, ...	2,651	183	42	198
Pettinain, ...	22	—	—	—
Symington, ...	154	7	—	10
Walston, ...	60	2	1	3
Wiston, ...	102	7	—	10
Totals, ...	10,401	430	192	863

*Housing (Rural Workers) Act, 1926.*—Reference was made in last year's Annual Report to the circular received from the Department of Health regarding the housing conditions of farm servants. During the year under review the farms in 9 parishes were inspected to ascertain the housing conditions prevailing for married and single workers. The results are appended :—

Parish.	No. of Farms Inspected.	No. of Notices Sent.	No. of Improvements.
Biggar, ... ..	22	11	2
Carmichael, ... ..	25	15	—
Carnwath, ... ..	74	22	12
Carstairs, ... ..	21	9	6
Covington and Thankerton,	9	7	5
Coulter, ... ..	11	2	—
Douglas, ... ..	18	14	3
Lamington, ... ..	8	5	1
Lanark, .. ...	27	11	17
Pettinain, ... ..	14	7	3
Symington, ... ..	9	6	8

The following is a statement of work done under the above-mentioned Act during the year.

#### PROGRESS IN UPPER WARD DURING YEAR.

Applications received in respect of 176 houses.

Certificates "A" issued, ... ..	122 houses.
Applications refused, ... ..	29 ,, 29
Cancelled, ... ..	7 ,, 7
Continued, ... ..	18 ,, 18
	<hr/> 176 <hr/>

Work completed and Grant paid in respect of	68
Grants still to be paid in respect of	... 54
	<hr/> 176 <hr/>



## WATER SUPPLY.

### SPECIAL WATER SUPPLY DISTRICTS,

There are 16 special water districts in the Upper Ward, viz. :—

- |  |                                   |
|--|-----------------------------------|
| 1. * Blackwood.                          | 9. Forth.                         |
| 2. * Braidwood.                          | 10. * Kirkfieldbank.              |
| 3. * Carluke.                            | 11. * Law.                        |
| 4. * Carnwath and Carstairs<br>Junction. | 12. * Lesmahagow and<br>Coalburn. |
| 5. * Carstairs Village.                  | 13. * Ponfeigh.                   |
| 6. * Crawford.                           | 14. Roberton.                     |
| 7. * Crossford and Hazelbank.            | 15. Symington.                    |
| 8. Douglas.                              | 16. * Thankerton.                 |

The trunk mains which traverse the Upper Ward District, and belonging to Motherwell and Wishaw Water Commissioners, the Airdrie and Coatbridge Water Commissioners, and the Middle Ward District Committee of the County of Lanark respectively, supply 12 of the above-mentioned districts, either wholly or partially. Such districts are marked by asterisk in the above list.

1. *Blackwood*.—This district, which includes the villages of Blackwood, Kirkmuirhill, and Auchenheath, was originally supplied from springs on the lands of Starbirns which proved sufficient for the immediate requirements of the district after its formation, but, as the District Committee intended to extend the boundaries so as to embrace the village of Auchenheath and surrounding properties, the Starbirns supply was augmented from the Middle Ward main (Dunside supply).

As the high colour of the Dunside supply was the subject of frequent complaint, the Committee took the earliest opportunity to abandon this supply in favour of that of the Camps main which passes convenient to Kirkmuirhill village. This supply is ample and satisfactory in every respect.

2. *Braidwood*.—This district, since its formation, has obtained its whole supply from the Wishaw main which follows the Lanark road towards Carluke. At first a 3-inch branch pipe supplied the village, but in 1924, with the formation of Crossford and Hazelbank Special

Water Supply District, this pipe was disconnected and supplanted by a 5-inch pipe which is breeched to the former at two points in the Braidwood district. The total consumpt for the two districts is recorded in a meter situated near Braidwood railway bridge and a second meter is placed at the extremity of the Braidwood boundary. The latter reading, when deducted from the former, gives the consumpt for the respective districts.

3. *Carluke*.—Carluke was formed into a Special Water Supply District about 48 years ago, the supply being obtained from Springfield. About 20 years ago, owing to the increase in the population, and the growth of the district generally, this supply being inadequate, was supplemented from the Wishaw main.

During the summer of 1927 the Wishaw supply was cut off temporarily (for 2 days or so) and, as there was a clamant demand for water in the district, the local committee made an arrangement with the Airdrie and Coatbridge Commissioners to take a connection from their main, not only to supply their immediate requirements, but to be in readiness for future cases of emergency. The value of this connection is acknowledged in the event of fire, when a large quantity of water is drawn from the mains. By turning on this supply the pressure on the whole system is maintained.

4. *Carnwath*.—Carnwath was formed into a Special Water District on 18th January, 1897, the supply being obtained from springs at Southtown, about 5 miles distant from the village.

Carstairs Junction is within the boundaries of the Special Water District, but until 1914 had two sources of supply, viz. :—

- (1) The River Clyde supply which was pumped direct to an elevated tank situated near Carstairs railway station. This supply (which is now used for watering locomotives) was laid on to about 130 houses owned by the railway company. The properties so supplied were principally two-storey blocks, and the intermittent supply, especially to the upper-floor houses, was the subject of continuous complaint ; and
- (2) Carnwath Special District water supply (which was only available from Kennedy wells situated in the streets) being for domestic purposes.

After negotiations with the railway company, arrangements were made to abandon the Clyde supply and to substitute Carnwath District water as soon as the Committee could provide an ample supply. The Committee procured an additional supply by meter from the Motherwell main which is situated near the railway bridge, south-west of Carnwath station. A pressure-reducing valve was installed to prevent water from being forced back to Carlindean tank and running to waste at the overflow pipe.

For the past few years the Local Committee had under consideration, for reasons of economy, the question of acquiring additional water from Southtown. The Committee inspected several likely springs, and a scheme has been drawn up by the Engineer to impound this supply and lay a new 5-inch pipe direct to Carnwath. This work was well in hand at the close of the year.

The large quantity of water registered in the Motherwell meter during the year gave rise to suspicions of serious leakage occurring in the system. After thorough investigations and tests these suspicions were justified, a large leakage being discovered in the vicinity of the railway station at Carstairs Junction. The defects were remedied by the railway company and the meter readings are now normal.

5. *Carstairs Village* is supplied wholly from the Motherwell main the connection being made at a point near Ryeflatt Bridge which is situated about one mile distant from the village. This supply is abundant, but the turbid condition of the water at intervals necessitates frequent scouring of the pipes.

6. *Crawford* is supplied from several sources, viz. :—

- (1) Colinsburn, at an annual rental of £22 14s. 2d.
- (2) The Glebe supply, for which a capital sum of £10 was paid.
- (3) Three different connections to the Wishaw main at
  - (a) Murray's Hotel, (b) Public House Trust Hotel, and
  - (c) a public supply by meter.

This supply is ample for the district.

7. *Crossford and Hazelbank*.—This district was formed in 1923, the whole supply being obtained from the Wishaw main in Lanark Road, Braidwood (for the particulars see notes on No. 2—Braidwood).

8. *Douglas*.—The primary source of supply was from springs at Pagie and Burnhouse, but as this supply proved insufficient for the needs of the district, the Committee laid on, in 1921, a secondary supply from Townheadhill. This district is now adequately supplied.

9. *Forth and Wilsontown*.—This district was originally supplied from springs on the lands of Mossplatt, which gravitate to a pumping-station situated at Lower Throughburn, thence the water is pumped to an elevated tank at Forth, which has a capacity of 40,000 gallons.

In consequence of considerable shortage due to the increased demand from the new housing scheme, the Committee resolved, in 1924, to lay on an augmentation supply from Skylaw and Lambcatch. The combined supplies have proved ample for the needs of the district, but, during the summer of 1927, complaints were received regarding the turbid state of the water. On investigation it was found that part of the catchment area was of a peaty nature, and the Committee resolved to discard several of the smaller intakes thereon and to introduce leaping-weirs at the Mouse intake and Beamershaw spring, and thereby remove the suspended matter complained of.

This supply during dry weather is fairly satisfactory, but after a heavy rainfall the water is turbid and not altogether satisfactory. The whole supply to this district will require to be augmented soon in view of the fact that the County Council propose to erect about 100 new houses in the district.

10.—*Kirkfieldbank*.—The water supply for this district is obtained from two sources, viz. :—

- (1) From springs on the lands of Byretown, Corehouse; and
- (2) A connection from the main (owned by the Wishaw Water Commissioners) near Baronald Cottage, where a meter and pressure-reducing valve are installed.

The latter supply, being auxiliary, is only used when our own supply falls short of the requirement. During the summer it was found necessary to make considerable use of the Wishaw supply, but for several weeks past our own tank has been full and capable of meeting the demands of the district.

11.—*Law*.—There are three supplies to this district, viz. :—

- (1) Springs at Badshaw;
- (2) The Wishaw main; and
- (3) The Motherwell main.

- (1) The springs at Badshaw are about 4 miles distant from the village and the water gravitates in two 4-inch cast-iron pipes to a service tank at Lawhill. This tank has a depth of  $11\frac{1}{2}$  feet, and, at 5,000 gallons to a foot, has a capacity of 57,500 gallons when full. Before leaving Badshaw the water is passed through sand filters.
- (2) Some years ago the Committee made an arrangement for a supplementary supply to be obtained from the Wishaw main and a connection was made near Belstane Farm.
- (3) Later, a further supply was obtained from the Motherwell Water Commissioners from their trunk main in the Old Wishaw Road.

Supplies for this district are adequate in all respects.

12. *Lesmahagow*.—Lesmahagow and Coalburn are embraced in one district, but are served from two distinct sources.

- (a) *Lesmahagow*.—This part of the district derives the bulk of its domestic supply from springs at Lawriesmuir and Muirsland which gravitate to a service tank at Ellensbank.

For a considerable time this supply has satisfied the needs of the district, but, as a reserve, in 1925, the Committee arranged for a connection being made to the Middle Ward main (Camps supply) at a point near Cemetery Lodge.

- (b) *Coalburn*.—The source of this supply is from springs on the lands of South Bankend Farm which gravitate to a service tank at Middlemuir. Beyond a few breakages caused by settlements this supply has been very well maintained.

To provide for cases of emergency the Committee, in 1925, arranged for a connection being taken from the Middle Ward main (Camps supply) at a point near the junction of the Carlisle and Gateside roads.

13. *Ponfeigh*.—The existing supply to Ponfeigh District is derived from the following sources :—

- (1) The Caldwell spring;
- (2) Ponfeigh Burn; and
- (3) A connection from the Middle Ward main, at Millbank, Douglas.

The original supply was introduced by the Coltness Iron Co., Ltd., to stand wells in the village. The provision of modern sanitary conveniences to the Company's houses in 1923, necessitating a greater supply than was then available, the Committee, by arrangement, took over the existing works from the Company, formed a Special Water Supply District, and augmented the supply from the Ponfeigh Burn.

In 1924, with the progress of the District Committee's housing scheme, it was considered desirable to further supplement the supply. This was accomplished by taking a connection from the Middle Ward main at Millbank, Douglas.

This district is now well supplied.

14. *Roberton*.—This supply, which is derived from springs on the lands of Kilpotlees, passes through a small sand filter to a storage tank. During the year the filtering media had to be renewed. The supply is now satisfactory and is well maintained.

15. *Symington*.—This Special Water District was formed in 1912, when the Committee took a supply of water from the proprietor of St. John's Kirk on the understanding that not more than 20,000 gallons per day would be required. A further 10,000 gallons per day was obtained during 1929.

Unusual complaints were received during the last quarter of the year as to insufficient supply and lack of pressure affecting a small area of the district. The storage tank at St. John's Kirk was always full to overflowing and consequently the shortage was discounted. A thorough examination of the piping in the affected area revealed the fact that the 2-inch pipe was corroded to almost two-thirds of its capacity. It should be explained that this 2-inch pipe was originally put in by the owners of three residential houses, prior to the formation of the Special Water District, and was connected to the Airdrie and Coatbridge water main.

On the formation of the district this 2-inch pipe was connected to the Symington main and was taken over by the Local Authority.

The defective pipes were reported to the County Water Engineer, Mr. James MacMillan, who had them scraped and put into proper order again. On the completion of this work the pressure and supply were normal and no further complaints have been received.

The district is now well supplied.



16. *Thankerton*.—This district is wholly supplied from the Wishaw main, and beyond a little inconvenience experienced during the scraping of the trunk main (carried out in 1927), is efficiently served.

#### SAMPLES OF WATER PROCURED FOR CHEMICAL ANALYSIS.

*High Cross, Carluke*.—In connection with proposed improvements, including the laying-on of a domestic water supply, the owner requested that a deep well situated in the garden should be sampled and analysed. The water was found to be so polluted as to be unfit for domestic use.

*Meadowflatt*.—A supply of water was required for the introduction of sanitary conveniences to two farm workers' cottages, and several samples were obtained from different sources. A satisfactory supply was latterly obtained.

*Headsmuir Farm, Carluke*.—Two samples of water were taken from springs on the lands of Headsmuir, Carluke, to augment the existing supply to the farm. The water was unsuitable for domestic supply, but the removal of the matter in suspension rendered it suitable.

*Hightownhead*.—Following the scouring of the iron pipes conveying this supply to the croft, a request was made to have the water analysed. This water was found to be suitable for domestic purposes.

*Waukmill*.—With a view to the re-occupation of a shepherd's cottage, a request was made by the farmer for an analysis of the existing water supply. The results indicated that the water was free from nitrogenous organic pollution, but contained matter in suspension which could be removed by cleaning the well.

*Westmains*.—A sample was procured from a proposed augmentation supply to the farm. This water was satisfactory and has been impounded and raised to the farm by means of a mechanical force pump.

*Lindsaylands*.—With a view to ascertaining the quality of the water supply to a proposed residence a sample was taken. On analysis it was found to be of a great purity.

*Fullwood Burn.*—A farmer complained of pollution to Fullwood Burn which flowed through his grazing fields. A sample was procured and the results indicated that the pollution was not due to sewage but rather of vegetable origin.

*Killallees Farm.*—It was considered necessary to sample this water as a complaint had been received regarding contaminated milk. The sample was obtained from a deep well in the yard and was found to be unfit for domestic or dairy purposes.

*Ridgepark.*—Owing to the shortage of the water supply at Lanark, the owner of Ridgepark desired to use the supply from a deep well on his land. The supply, however, was considered to be of doubtful purity.

*Newbigging.*—Complaints were received from the tenants of the Railway Cottages at Newbigging Station as to the odoriferous state of the water supply. The supply was pumped from a deep well situated at the foot of the railway embankment and was not considered liable to pollution. Analysis, however, indicated that the water was polluted and unfit for domestic purposes. Negotiations followed with the Railway Company's Factor and the well was cleaned and repaired, but the water remains unsatisfactory. An alternative supply is unobtainable unless the Local Authority extends the main from Carnwath to Newbigging Village.

*Carstairs Village and Junction.*—Samples of the water supply to Carstairs Village and Junction were procured at the instance of a local Medical Practitioner in collaboration with the Assistant Medical Officer of Health. The samples proved to be free from nitrogenous organic pollution, but the physical character of the water could be improved.

*Muirhead Farm, Carstairs.*—The tenant farmer complained about the large amount of iron in solution in the supply to his farm, and, on examination, it was found that a spring was led into an old upright iron boiler, which was badly corroded. The boiler was emptied and a sample was taken of the water as it entered. The water was found to contain an excessive amount of iron. An alternative satisfactory supply was obtained from a spring at a lower level, but will require to be pumped to the farm.

*Rainfall.*—The following is a statement of the rainfall for the past ten years, as recorded at Coldstream Reservoir, Carluke :—

Year.						Rainfall in Inches.
1921,	-	-	-	-	-	39·70
1922,	-	-	-	-	-	30·15
1923,	-	-	-	-	-	38·65
1924,	-	-	-	-	-	31·90
1925,	-	-	-	-	-	35·00
1926,	-	-	-	-	-	39·80
1927,	-	-	-	-	-	48·60
1928,	-	-	-	-	-	45·80
1929,	-	-	-	-	-	38·30
1930,	-	-	-	-	-	35·26

Average for the 10 years, - - 38·32 inches approximately

## DRAINAGE.

### SPECIAL DRAINAGE DISTRICTS.

There are 15 special drainage areas in the Upper Ward District, and these comprise the following :—

Blackwood and Auchenheath.	Crosslaw.
Braidwood.	Douglas.
Carluke.	Kirkfieldbank.
Carnwath.	Law.
Carstairs Village.	Lesmahagow.
Coalburn.	Ponfeigh.
Crossford and Hazelbank.	Symington.

Thankerton.

No new drainage areas were formed during the year and except for the usual maintenance and attention to the existing sewerage systems there is nothing of any importance to record.

During the latter portion of the year the County Council had under consideration the formation of special drainage districts at Crawford, Leadhills, and Forth, but at the close of the year these matters were still at the report stages. The question of providing suitable sewage purification works at Douglas has also been under consideration.

As mentioned in last year's Annual Report, all the houses at Hazelbank on the high side of the road have been provided with water and water-closet accommodation, and connected up to the new sewer, but there are 5 houses on the low side of the road which cannot practically be connected to this sewer and it is recommended that a subsidiary sewer should be laid to provide drainage for the 5 houses mentioned.

## SCAVENGING.

### SPECIAL DISTRICTS.

The Special Scavenging Districts are enumerated as under :—

- |  |                             |
|--|-----------------------------|
| 1. Blackwood and Kirkmuirhill<br>(which includes Auchenheath). | 8. Crossford and Hazelbank. |
| 2.*Carluke.  | 9.*Douglas.                 |
| 3. Carnwath.   | 10.*Forth and Wilsontown.   |
| 4. Carstairs Junction.   | 11.*Haywood.                |
| 5. Carstairs Village.  | 12. Kirkfieldbank.          |
| 6. Coalburn.   | 13. Law.                    |
| 7. Crosslaw.   | 14. Leadhills.              |
|  | 15.*Lesmahagow.             |
| 16. Ponfeigh.  |                             |

The districts marked with an asterisk are scavenged by direct labour while the remainder are under contract. There is no question that the work is more satisfactorily carried out when done by direct labour, but having regard to the small rateable value of the smaller districts this arrangement would be impracticable for economic reasons.

It should be mentioned that Crawford was formed into a special scavenging district several years ago, but has never operated on account of the difficulties experienced in procuring a suitable coup, and also any local contractors to offer for the work.

## LIGHTING.

### SPECIAL DISTRICTS.

There has been no addition during the year to the number of special lighting districts as enumerated in last year's Annual Report.

The districts are as follows:—

- |                |             |
|----------------|-------------|
| 1. Carluke.    | 3. Douglas. |
| 2. Crosslaw.   | 4. Law.     |
| 5. Lesmahagow. |             |

The question of forming Carnwath into a special lighting district is still in abeyance, and will depend on the decision of the Hydro-Electric Power Company to extend their cable to this area.

### Special Districts.

The special districts for the purposes of water supply, drainage, scavenging, and lighting are shown in the following table. The rates of assessment (half-proprietor, half-tenant) for the year 1930-31 are also shown. A blank in the assessment column means that no district has been formed for the special purposes indicated.

District.	Water.	Drainage.	Scavenging.	Lighting	Total Assessment.
Blackwood, ... ..	1/9	2/-	3d.	—	4/-
Braidwood, ... ..	9d.	1/1	—	—	1/10
Carlukc, ... ..	9d.	10d.	4½d.	3½d.	2/3
Carnwath, ... ..	2/3	10d.	3d.	—	3/4
Carstairs Junction, ...	1/8	—	3d.	—	1/11
Carstairs Village, ...	1/8	1/	5d.	—	3/1
Crawford, ... ..	1/2	—	—	—	1/2
Crossford and Hazelbank,	1/-	1/7½	8d.	—	3/3½
Crosslaw, ... ..	—	1d.	3½d.	4d.	8½d.
Douglas, ... ..	1/4½	4½d.	5½d.	3½d.	2/6
Forth, ... ..	2/2½	—	4½d.	—	2/7
Haywood, ... ..	—	—	5d.	—	5d.
Kirkfieldbank, ... ..	1/2	1/9½	11½d.	—	3/11
Law, ... ..	4d.	3½d.	2d.	3½d.	1/1
Leadhills, ... ..	—	—	6d.	—	6d.
Lesmahagow, ... ..	1/-	1/1	5½d.	2½d.	2/9
Coalburn, ... ..	1/-	2/-	4½d.	—	3/4½
Ponfeigh, ... ..	1/8	9d.	7½d.	—	3/0½
Roberton, ... ..	1/6	—	—	—	1/6
Symington, ... ..	1/2	10d.	—	—	2/-
Thankerton, ... ..	2/2	1d.	—	—	2/3

## NUISANCES.

60 complaints were received during the year. The subject of complaint in each case was carefully inquired into, and, where necessary, steps were taken to secure the discontinuance or abatement of the nuisance.

In addition to the above, there were many inspections made with a view to the detection of nuisances, and as a result 56 intimations were served from the office under Section 19 of the Public Health (Scotland) Act, 1897.

In many cases the existence of nuisances was brought to the notice of the authors verbally and remedial measures carried out without further intimation. In no case was it found necessary to have a statutory notice under Section 20 of the Public Health (Scotland) Act, 1897, served in respect of the non-abatement of any nuisance.

A notable complaint received during the year alleged a nuisance caused by fumes emanating from a bakehouse and gaining admission to an adjoining dwelling-house.

It might be stated that the mutual boundary wall separating the two properties had been built on either side—on the one side, the bakery, and on the other, back-kitchen, bathroom, &c. On the bakehouse side it was discovered that a small outlet ventilator, partly covered by a board, was conducting fumes under the corrugated iron roof of the opposite premises. The fumes were said to arise from the coke used for the ovens and was at its worst at night after the fire had been backed up. Arrangements were made with the owner of the bakehouse to seal the existing ventilator at the wall-head and provide a new cowl ventilator at the highest point of his roof, and also provide an inlet ventilator on the external wall. I am satisfied that the suggested improvements will remove all cause for complaint.

A drainage nuisance complained of by a tenant farmer at Crawfordjohn, on whose lands practically the whole of the drainage of the village is distributed, was reported during the year to the County Medical Officer. The report is appended and explains the circumstances giving rise to the complaint:—

“The original water supply to Crawfordjohn village was owned by the Superior, Lord Colebrooke, and a monument well situated in the village was gifted many years ago to the inhabitants by the late Sir Edward Colebrooke. The water intakes and tank fell into a



state of disrepair and the estate people were unwilling to spend money on the necessary renovations. About 18 months ago, on account of shortage of water, the Upper Ward District Committee took the matter up with the Superior's Agents and made an arrangement to take over the supply, put it into a proper state of repair, and maintain it.

"It should be stated that there are two outlets from the water tank :—

- (1) a three-inch main outlet to the village (which supplies three stand-wells provided by the Upper Ward District Committee); and
- (2) a supply to Crawfordjohn Farm.

"The Committee doubled the size of the tank, and on my last visit, I observed, the new tank was full.

"Since these improvements were completed three water-closets have been introduced to houses in the village—one at Miss Stevenson's house, one at Mr. Renton's house, and another at the public hall. These conveniences were introduced without permission from the Local Authority or the Superior's Agents, and each discharged into a small tank. The effluent from these tanks enters a road drain, having an outfall to the ditch complained of, which adjoins the schoolhouse garden. The drainage from the schoolmaster's house and school latrines also discharge into this ditch.

"Following upon the introduction of Mr. Renton's water-closet, his brother, who is tenant farmer of Crossknowe Farm, wrote to the Superior's Agent, Mr. Borthwick, of Edinburgh, objecting to this increased discharge of sewage to his field. Mr. Borthwick communicated with the County Clerks about this matter six months ago and the County Clerks replied that, after the change-over on the 15th May, 1930, it might be possible to have an arrangement between the Education Committee and Public Health Committee to dispose of the drainage satisfactorily.

"Mr. Neil Black, a contractor in Crawfordjohn, purchased a property in the Main Street a few months ago and submitted proposals to renovate the premises, introduce a bathroom with bath, water-closet, and lavatory, and build a scullery with sink and wash-tubs. These proposals were not agreed to on the grounds that he had not the permission of Mr. Borthwick to discharge the drainage to the field under complaint, and it appears that letters have reached the Education Committee with a view to having the drainage facilities improved so that Mr. Black can carry out his plans.

"An alleged epidemic of sore throats was carefully investigated by the County Medical Officer of Health, but no evidence was found to substantiate the complaint.

"It is admitted that the drainage arrangements for Crawfordjohn village are somewhat antiquated, but having regard to the fact that the village is a decaying one and that no serious complaints have ever

been made before, I am inclined to the view that certain inhabitants are demanding the introduction of all modern conveniences, facilities for which could not be supported by the village on account of the low valuation."

### **Schools.**

There are 51 public schools in the Upper Ward District. In the course of the year many visits were paid to these in connection with the occurrence of infectious sickness.

The primary school at Biggar is now completed and in use, and an addition to the Biggar Higher Grade School was in course of erection at the end of the year.

### **Workshops.**

240 inspections were made to workshops in the Upper Ward District during the year. A notice was received from H.M. Inspector of Factories regarding a bakehouse where certain structural defects were found to exist. The defects were intimated to the owner and were remedied forthwith. During inspections want of cleanliness was observed in four cases, and other nuisances numbered three. Notices were served upon the occupiers of the workshops and the conditions complained of were remedied.

### **Food and Drugs.**

The administration of the Sale of Food and Drugs Acts is undertaken by the County Council, and full information as to the samples taken for analysis and other work done will be found in the County Report.

### **Rivers Pollution.**

The administration of the Rivers Pollution Prevention Act is undertaken by the County Council, and information as to the action taken will be found in the County Report.

### **Burial Grounds.**

No complaints were received during the year regarding any burial ground in the district.

Five interments were carried out at the instance of the Local Authority under Section 69(1) of the Public Health (Scotland) Act, 1897, at a total cost of £18 0s. 6d. Of this amount £4 10s. 6d. was recovered.

### **Accommodation for Seasonal Workers.**

66 intimations were received during the year of the intention to accommodate seasonal workers, this number being more than that received last year.

Miss McMichael, Housing Inspector to the Department of Health for Scotland, inspected a number of farms where seasonal workers were accommodated, and her report, submitted to the County Clerks, showed that, on the whole, the accommodation provided in the Upper Ward farms was fairly satisfactory.

### **Coal Mines Act, 1911, Section 26.**

Two notices were received during the year from H.M. Inspector of Mines relating to the abandonment of Auchenheath Pit 1/2 and Bankend No. 8. The respective owners were notified regarding their obligations in closing all shafts and entrances so as to prevent accidents, and in each case the work was immediately attended to.

### **Milk and Dairies (Scotland) Act, 1914.**

The Department of Health for Scotland, in their circular, Public Health, No. 2, 1930 (Counties), requests sanitary officers to furnish information in detail of the dairying industry in their respective districts:—

(1) Statement of conditions found and particular points that require remedy.

The registered dairies in the district were inspected during the year as time permitted, and the principal defects found to exist were as follows:—

- (a) lack of proper inlet and outlet ventilation;
- (b) inadequate light;
- (c) rough and unplastered condition of walls;
- (d) lack of beam-filling of wall-heads;
- (e) unsuitable trevisses, floors, grips, and troughs.

During the year under report, 27 dairy farms were renovated to meet the requirements of the By-laws made under Section 8 of the Act.

As previously stated, the bulk of the farms in this district belong to a few estates, and it has not been found possible to get all the farms brought into conformity with the By-laws other than by a gradual improvement system. It is only fair to say that each estate improves their quota of farms every year.

One real difficulty experienced by this Local Authority is that, according to the Act, the tenant of the farm where repairs are necessary is called upon to execute same and in turn he has power to recover part of the cost from the owner. In many cases the tenant-farmer, especially where the lease is about to expire, is most unwilling to carry out repairs under such conditions.

(2) Particulars of the extent to which—

- (a) The cowsheds comply with the structural and sanitary requirements of the Dairy By-laws.

Approximately 70 per cent. of the registered premises in the district conform to the requirements of the By-laws.

- (b) The extent to which dairymen and their employees conform to the requirements of the By-laws relating to methods of milking, handling, and generally the production of clean milk.

The methods of dairymen and their employees generally in the handling and production of clean milk are very satisfactory. At the instance of the County Medical Officer, my attention was called to several cases where the milk produced was unsatisfactory and a visit of inspection was made to these premises, the methods employed investigated, and, where necessary, advice was given with advantageous results.

(3) Notes of improvements obtained in the condition of dairies, including observations regarding any complaints received or dealt with :—

*Parish of Biggar—*

Rowhead Farm.—Single-headed byre widened. Double-headed byre formed to stall 28 cows. New trussed roof provided, with glazed opening ridge for whole length. New cement floor and trevisses. Walls plastered to wall-heads and beam-filled. Adequate inlet ventilators inserted through the walls. Very satisfactory improvement.

Toftcombs.—New cement trevisses and floor. Walls plastered to wallheads and beam-filled. Adequate inlet and outlet ventilation provided.

Eastfield.—New milkhouse provided.

*Parish of Carluke—*

Easterhouse.—Byre reconstructed to stall 6 cows. New cement floor and trevisses. Walls plastered to a height of 4 feet. Adequate inlet and outlet ventilation provided.

*Parish of Carmichael—*

Drumalbin.—Single-headed byre reconstructed to stall 36 cows. New cement floor and trevisses provided. Inlet and outlet ventilators installed. Walls plastered to wall-heads and beam-filled. Water bowls introduced. Very satisfactory improvement. Steam sterilising plant introduced. Sink with water laid on installed in byre.

*Parish of Carnwath—*

Loanhead, Tarbrax.—New concrete floor and trevisses. Walls plastered and beam-filled. Inlet and outlet ventilation provided. Lighting improved.

Milk-Store.—Walls plastered and suitable benches provided.

Girdwoodend.—Floor partly renewed. Walls plastered with cement. Inlet and outlet ventilation installed. Additional light.

Calla.—Floor partly renewed. Walls plastered. Inlet and outlet ventilation improved.

Greenshieldshouse.—Inlet and outlet ventilation improved. Walls plastered with cement.

Henshilwood.—New concrete floor and trevisses. Walls plastered.

*Parish of Carstairs—*

Shodshillmill.—Water bowls provided.

*Parish of Lanark—*

Robiesland.—The three dairy byres have been brought into conformity with the By-laws. The improvements consist of:—Concrete trevisses, floors, walks, grips, and settles. Proper inlet and outlet ventilators provided. Walls plastered and beam-filled. Water bowls introduced.

Milk-Store.—New concrete floor and benches. Walls and ceiling repaired.

Stanmore.—Byre renovated in accordance with by-laws. These improvements were made after proceedings were instituted by the Local Authority against the tenant-farmer whose name was temporarily removed from the Dairy Register. The improvements consist of :—Inlet ventilators were lowered and new glazed outlet ventilators were introduced at the ridge of the roof. Concrete trevisses installed.

Castlehill.—New concrete floor and trevisses. Walls plastered and beam-filled. Inlet and outlet ventilation improved.

Smyllum.—Walls plastered and wall-heads beam-filled. Outlet ventilators introduced (Turner type).

Mousebank.—Byre reconstructed to stall 5 cows. New floor grip and walk. Cement trevisses. Inlet and outlet ventilation improved. Additional light introduced.

*Parish of Lesmahagow—*

Eastertown.—Byre completely reconstructed. New concrete floor, trevisses, grips, and walk. Walls plastered and beam-filled. Inlet and outlet ventilators provided (Weir type).

Darnfillan.—New concrete floor, walk, and grips. Cement trevisses. Inlet and outlet ventilation improved.

Reddochbraes.—Single byre renovated. New concrete floor, grips, and walk. Walls plastered and beam-filled. Inlet and outlet ventilation improved. Additional light introduced.

Dykehead.—Concrete trevisses provided. Walls plastered to a height of 5 ft. Inlet ventilators introduced.

*Parish of Libberton—*

Quothquan Mill.—New dairy premises erected to meet the requirements of the by-laws.

Baitlaw.—Byre reconstructed to meet the requirements of the by-laws.

Easter Whitecastle.—New byre erected to meet the requirements of the by-laws.

Loanhead.—Single byre reconstructed. New concrete floor, walks, and grip. Walls plastered and beam-filled. Inlet and outlet ventilation improved. Additional light introduced.

*Parish of Pettinain—*

Blackhouse.—Byre renovated. New cement floor provided. Troughs reset. Walls plastered to a height of 4 feet and beam-filled. Adequate inlet and outlet ventilators installed (Turner type). Lighting improved.

Cloburnwood.—Introduction of inlet and outlet ventilators and additional light.



*Parish of Walston—*

Lammerlaw.—Single byre reconstructed. New concrete floor, wall, and grips. Concrete trevisses. New troughs. Walls plastered and beam-filled. Inlet and outlet ventilation improved. Additional light provided.

4. (a) The number of registered cowsheds in the district and the total number of cows therein :—

There are 586 registered cowsheds in the district and approximately 12,000 cows therein.

(b) Number of cowsheds exempt from registration, and the approximate number of cows in such cowsheds :—

The number of cowsheds exempted from registration totals 41, and the number of cows therein is approximately 80. As already stated in a previous report, these exempted premises relate to places where one or two cows are kept for private use, *e.g.*, crofters, sheep-farmers, and stock-raisers, who keep the animals to provide dairy produce for themselves and their workers.

5. The articles of the Milk and Dairies (Scotland) Order, 1925, have been satisfactorily complied with, and in no case was it found necessary to call the attention of the farmer to the consigning of milk per common carrier in unsealed vessels.

### INFECTIOUS DISEASES.

678 visits of inquiry were paid.

684 notices were issued to headmasters.

363 houses or premises were disinfected.

296 patients were removed to hospital.

For fuller details as to Infectious Disease refer to the Report of the Medical Officer of Health.

In conclusion, following the reorganisation of the County Public Health Service and the consequent redundancy of my position as District Sanitary Inspector, I shall demit office on the 14th February, 1931. Having completed 30 years service with the former Upper Ward District Committee, I should like to say that, arduous as the duties of my position were, I always had the whole-hearted support of the members of the District Committee, and my service with that Committee will always remain one of the happiest and brightest of memories.

I should like to take this opportunity of thanking the County Clerks, Messrs. John M'Ghie and Robert Bryce Walker, who for the past few years were Joint District Clerks and Treasurers for the Upper Ward, for their courteous and valuable guidance in many difficult matters which confronted the Public Health Department.

I should also like to thank most heartily all the members of the Public Health Staff who were always most willing and obliging in carrying out the duties devolving upon them, and in particular Mr. John Innes, my senior assistant, who has proved a most capable and painstaking assistant in the fullest sense of the word.

WILLIAM PATERSON,

*District Sanitary Inspector.*

14th February, 1931.

# BURGH OF BIGGAR

(Area, 62 Acres)

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## REPORT

OF THE

MEDICAL OFFICER OF HEALTH AND OF THE  
SANITARY INSPECTOR

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1930

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## Report of the Medical Officer of Health.

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### Statistics.

The **population**, as estimated to the middle of the year 1930, was 1,540.

The **Births** registered in the Burgh, amounted to 20, and, after correction for transfers, numbered 18—males, 12; females, 6—giving a birth-rate of 11·7 per 1,000 of the population.

The **Deaths** registered in the Burgh numbered 15, and, after correction for transfers, amounted to 17—males, 8; females, 9—giving a death-rate of 11 per 1,000 of the population.

The following table shows the cause and age periods at death :—

	-1	1-	5-	10-	25-45	45-55	65 & over.	Total.
Malignant Diseases,	- —	—	—	—	—	2	1	3
Cerebral Hæmorrhage, -	—	—	—	—	—	—	2	2
Organic Heart Disease, -	—	—	—	—	—	2	2	4
Other Circulatory Diseases, -	—	—	—	—	1	—	—	1
Other Respiratory Diseases, -	—	—	—	—	—	—	1	1
Diabetes, -	—	—	—	—	—	—	1	1
Other Defined Diseases, -	—	—	—	—	—	—	5	5
Total,	—	—	—	—	1	4	12	17

### Prevalence of Infectious Disease.

**Notifiable Diseases.**—In all, 7 cases of infectious disease were notified. Scarlet fever, 6; chickenpox, 1. Of these, 5 cases of scarlet fever was treated in the District Hospital, Roadmeetings. Visits of inspection were made to the homes where the cases occurred, and disinfection carried out. All precautions to prevent the spread of the disease were taken.

**Tuberculosis.**—2 notifications were received during the year. Pulmonary tuberculosis, 1; non-pulmonary tuberculosis, 1.

*Institutional Treatment.*—No cases received hospital treatment during the year.

*Domiciliary Treatment.*—No cases received domiciliary treatment during the year.

*Deaths from Tuberculosis.*—No deaths occurred during the year.

### Venereal Diseases.

The Burgh is included in the scheme of the Joint-Committee for the prevention and treatment of venereal diseases.

### **Maternity and Child Welfare.**

The Burgh is included in the Upper Ward Scheme. The District Nurse acts as Nurse Health Visitor for the Burgh and surrounding County District.

*Notifications of Birth.*—14 notifications were received, and the attendant at birth in each case was a medical practitioner.

*Infant Mortality.*—No deaths under 1 year are recorded.

*Necessitous Cases.*—1 case received assistance during the year.

*Hospital Treatment.*—There were no admissions to hospital during the year.

### **Midwives (Scotland) Act, 1915.**

*Practising Midwives.*—There are no practising midwives in the Burgh.

*Attendances at Confinements.*—14 notifications of birth were received, all being attended by medical practitioners.

*Still-births.*—There were no still-births during the year.

*Puerperal Septicæmia.*—No cases occurred.

*Ophthalmia Neonatorum.*—No cases occurred.

### **Milk and Dairies (Scotland) Act, 1914.**

There are retailers only within the Burgh.

### **General Sanitation.**

Water supply, drainage and sewage disposal, scavenging, and other matters are referred to in the report of the Sanitary Inspector.

*Workshops.*—These are dealt with in the report of the Sanitary Inspector.

*Food and Drugs Acts.*—The County Council administer these Acts within the Burgh.

The Public Slaughterhouse is situated outside the Burgh boundary. A record of the animals killed and dues collected is given in the Sanitary Inspector's report.

J. HUME PATTERSON,  
*Medical Officer of Health.*

## Report of the Sanitary Inspector.

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The **Water Supply** for the Burgh of Biggar is obtained from King's Beck Burn, which is about seven miles south of Biggar.

The Town Council inspected the dam in the month of August last, and the supply was adequate for all purposes.

The **Drainage and Sewage Systems** of the Burgh are dealt with in two portions, east and west. The east portion goes through two settling tanks, and is run in channels and spread over about six acres of land owned by the Town Council. The west portion of the sewage goes through three settling tanks and then spreads over about ten acres of land, the property of the Town Council.

**Scavenging System.**—The ashes and night soil from dry-closets are removed on alternate days—that is on Monday, Wednesday, and Friday from the east end of the Burgh, and on Tuesday, Thursday, and Saturday from the west end of the Burgh. On Friday there is a general collection of all rubbish, &c., which is burned in a coup situated about two miles outside the Burgh.

During the year one water-closet was erected, and the use of one dry-closet was discontinued.

**Nuisances.**—Several cases were dealt with during the year. After due notice having been given they were removed by the tenants or owners, no legal proceedings being necessary.

The **High School** was visited frequently and found always to be very clean and in good order.

There are 13 properties without water and sink inside the dwelling-house, within the Burgh.

**Water-closets.**—There are 16 water-closets each for two tenants, and 9 water-closets each for three tenants. All other properties have one or more closets for each tenant.

There are 12 dry-closets—3 for five tenants, 2 for four tenants, 2 for three tenants, and 5 for one tenant each.



**Living Vans** were inspected from time to time, and found to be clean and in order.

**Cowkeepers and Sellers of Milk.**—There are no cowkeepers within the Burgh. There is one milkshop, which was inspected frequently and always found to be in a clean condition.

**Pig-styes.**—Visits of inspection were frequent, and both pigs and the styes were kept clean and in good order.

**Common Lodging-Houses.**—There are none within the Burgh.

**Burial Ground.**—The burial ground is situated partly within the Burgh and partly in the County Area. A good supply of water is given by the Town Council. The grass is frequently cut during the summer and the ground kept in a clean condition.

**Infectious Disease.**—The cases of infectious diseases occurring in the Burgh are noted in the report of the Medical Officer of Health. Enquiries were made as to the source of infection, and thorough disinfection of the bedding and houses was carried out.

**Workshops.**—There are 42 workshops in the Burgh. There are no underground workshops. The following is a list of the different workshops and the number of persons employed:—

				NO. OF EMPLOYEES.			
Workshops.	No. of Shops.	Males.	Females.	Apprentices.	Total.		
Dressmakers and Milliners,	- 9	7	10	3	20		
Tailors, - - - -	- 3	5	1	—	6		
Bakers, - - - -	- 4	12	9	5	26		
Cabinetmakers,	- - - 2	5	2	1	8		
Jewellers, - - - -	- 3	3	1	—	4		
Harnessmakers,	- - - 1	3	1	—	4		
Blacksmiths, - - - -	- 2	4	—	2	6		
Shoemakers, - - - -	- 5	8	3	—	11		
Engineers, - - - -	- 4	13	1	2	16		
Plumbers, - - - -	- 2	7	2	5	14		
Painters, - - - -	- 3	14	—	5	19		
Joiners, - - - -	- 4	12	—	4	16		
Total, - - - -	42	93	30	27	150		

**Slaughterhouse.**—The slaughterhouse is situated outside the Burgh boundaries. Visits of inspection were frequent, and the premises were found to be kept in a very clean condition. The record of animals killed and the dues collected are as follows:—

Cattle.	Calves.	Swine.	Sheep.	Total.	Dues Collected.
685	19	354	27,515	28,573	£353 3 7

**Record of Inspections made.—**

	No. of Inspections.
High School, - - - - -	32
Workshops, - - - - -	46
Vans, - - - - -	17
Milkshops, - - - - -	16
Pig-styes, - - - - -	22
Fish Shops, - - - - -	24
Slaughter house, - - - - -	35
	<hr/> 192 <hr/>

WILLIAM M. SMITH,  
*Sanitary Inspector.*

## BURGH OF LANARK.

# Report of the Medical Officer of Health, 1930.

## Vital Statistics.

**Population.**—The Registrar-General has estimated that the population of the Burgh at the middle of 1930 was 6,422, which is a decrease of 4 when compared with the estimated figure for 1929.

**Births.**—The number of births registered in the district during the year was 97, an increase of 6 from last year. This, after correction for transfers, numbered 105—males, 56; females, 49—giving a birth-rate of 15·1 per 1,000 of the population, uncorrected for transfers, and 16·3 per 1,000 of the population, corrected for transfers.

*Illegitimate Births.*—Illegitimate births corrected for transfers numbered 6—males, 3; females, 3; giving an illegitimate birth-rate of 5·7 per 100 births as compared with 6, the figure for last year.

*Mortality.*—The deaths registered during the year, after correction for transfers, numbered 91—males, 39; females, 52—giving a death-rate from all causes of 14·1 per 1,000 of the estimated population. The deaths of infants under 1 year numbered 4, giving an infant mortality rate of 38·1 per 1,000 births, as compared with the rate of 40 for the previous year.

	Numbers Registered in District.	Transfers.		Corrected Numbers.		
		Out.	In.	Both Sexes.	Male.	Female.
Total Births (including Illegitimate), -	97	5	13	105	56	49
Illegitimate Births,	4	—	2	6	3	3
Marriages, - -	67	—	—	—	—	—
Deaths. - - -	85	8	14	91	39	52

## PRINCIPAL RATES PER 1,000 OF ESTIMATED POPULATION.

	Uncorrected.	Corrected for Transfers.
Birth Rate, - - - - -	15.1	16.3
Illegitimate Birth Rate. per 100 Births, -	—	5.7
Marriage Rate, - - - - -	10.4	—
Death Rate (All Causes), - - - - -	—	14.1
„ „ (All Tuberculosis), - - - - -	—	.93
„ „ Tuberculosis of Respiratory System, -	—	.64
„ „ Principal Epidemic Diseases, -	—	.15
Infant Mortality Rate (Deaths under one year, per 1,000 Births), - - - - -	—	38.1

*Deaths from Malignant Diseases.*—12 deaths are reported as due to malignant disease—males, 5; females 7. The age periods are from 35 years upwards.

*Deaths from Tuberculosis.*—The number of deaths from tuberculosis (all forms) numbered 6—males, 4; females, 2; giving a death-rate of .93 per 1,000 of the population, as compared with the rate of .78 for the previous year. Those deaths were classified as follows:—Pulmonary, 4; non-pulmonary, 2.

*Deaths from Respiratory Diseases excluding Tuberculosis.*—These numbered 8 and were as follows:—Pneumonia (all forms), 5; bronchitis, 2; other respiratory diseases, 1.

## Prevention of Infectious Diseases.

The number of cases of infectious diseases notified during the year was 99. The following table shows the various diseases notified and also the age periods:—

Ages,	-1	1-5	5-15	15-25	25-45	45-65	65 and over.
Scarlet Fever, -	—	8	11	1	1	—	—
Diphtheria, -	2	6	25	3	2	—	—
Erysipelas, -	—	—	—	1	—	3	—
Chickenpox, -	1	4	6	—	—	—	—
Acute Primary Pneumonia, -	4	1	1	1	3	—	1
Puerperal Pyrexia, -	—	—	—	—	1	—	—
Pulmonary Tuberculosis, -	—	—	—	4	2	1	—
Non-Pulmonary Tuberculosis, -	—	1	2	1	1	1	—

*Scarlet Fever.*—This disease was more prevalent, 21 cases being notified in comparison with 9 during the previous year. All the cases were removed to hospital.

*Diphtheria.*—There was an increase in the notification of this disease, 38 cases being reported during the year, as compared with 14 during the previous year. 36 of the cases reported were removed to hospital, 2 being isolated at home. 1 death occurred in Road-meetings Hospital.

NOTIFIED CASES OF INFECTIOUS DISEASE ACCORDING TO SIZE OF HOUSE.

	1 Apt.	2 Apts.	3 Apts.	4 Apts.	5 Apts. & over.	Inst.
Scarlet Fever, -	1	8	7	2	2	1
Diphtheria, -	3	26	2	3	4	—
Erysipelas, -	—	3	1	—	—	—
Chickenpox, -	2	9	—	—	—	—
Acute Primary Pneumonia, -	1	6	—	—	3	1
Puerperal Pyrexia,	—	—	—	1	—	—
Pulmonary Tuber- culosis, -	—	2	1	—	1	3
Non-Pulmonary Tuberculosis, -	—	1	1	1	1	2

*Hospital Admissions.*—The following statement shows the number of cases admitted to hospital:—

	District Hospital, Roadmeetings.	County Hospital, Motherwell.
Diphtheria, - - -	33	3
Scarlet Fever, - - -	21	—
Erysipelas, - - -	1	—

### Tuberculosis.

The arrangement by which the work of this scheme is undertaken by the Upper Ward District Committee of the County of Lanark continues the same as before.

*Notifications.*—During the year 13 notifications of the disease were received, 7 being of the pulmonary type, and 6 being of the non-pulmonary type.

The age periods at date of notification are given in the table of infectious diseases.

*Institutional Treatment.*—4 pulmonary cases received treatment in the District Sanatorium, Roadmeetings, and 1 pulmonary case in Hairmyres Colony.

*Domiciliary Treatment.*—3 cases received domiciliary assistance during the year.

*Deaths.*—During the year 6 deaths occurred from tuberculosis.

### Maternity and Child Welfare.

*Notification of Birth.*—The number of notifications of birth received amounted to 106, of which 98 were live births and 8 still-births.

*Infantile Mortality.*—The deaths of infants under one year numbered 4, giving an infant mortality rate of 38.1 per 1,000 births. The deaths classified according to the form prescribed by the Department of Health are as follows:—

	Weeks.			Months.			
	- 1	1-4	1-3	3-6	6-12	Total	
Septicæmia, - - -	-	—	1	—	—	1	
Congenital Heart Disease, -	1	—	—	—	—	1	
Premature Birth, - - -	1	—	—	—	—	1	
Other Defined Diseases, - -	1	—	—	—	—	1	

*Maternal Mortality.*—1 death under this classification occurred during the year. The death occurred in hospital. The certified cause of death was:—Albuminuria gravidarum, uræmia, premature birth.

*Puerperal Pyrexia.*—1 case occurred during the year, and was notified by the medical attendant. The case was treated at home.

*Ophthalmia Neonatorum.*—No cases occurred during the year.

*Home Visitation.*—First visits numbered 80; subsequent visits, 813; and other visits 132, making a total of 1,025 visits.

*Necessitous Cases.*—The cases receiving assistance during the year numbered 35, and were as follows:—Expectant mothers, 8; nursing mothers, 13; children under 1 year, 5; children under 5 years, 9.



*Hospital Admissions.*—During the year 12 cases were admitted to the County Maternity Hospital, Bellshill—normal cases of confinement, 12.

*Ear, Throat and Nose Ailments.*—2 children were admitted to the County Convalescent Home, Calderbank House, for the removal of tonsils and adenoids. 1 case was admitted to the County Hospital, Motherwell, for removal of tonsils and adenoids.

### **Midwives (Scotland) Act, 1915.**

*Practising Midwives.*—1 certified midwife notified her intention to practise.

*Notifications and Attendances at Confinements.*—106 notifications were received in the Burgh, of which 98 were live births, and 8 still-births. From the information received it was found that in 80 cases a doctor was in attendance, and in 26 cases a certified midwife.

*Still-births.*—5 still-births were notified during the year, 6 being by the medical attendant, and 2 by certified midwives.

*Inspection of Midwives.*—Routine inspections were carried out during the year. Records were kept in a satisfactory manner.

*Puerperal Septicæmia.*—No cases were notified during the year.

*Ophthalmia Neonatorum.*—No cases of Ophthalmia Neonatorum were notified during the year.

*Notice of Calling in Medical Assistance.*—No form was received during the year.

*Notice of Still-Birth.*—2 notifications were received, 1 being from the County Maternity Hospital, Bellshill.

### **Treatment of Venereal Disease.**

The Joint Committee of the various Local Authorities in the County of Lanark deal as before with the diagnosis, prevention, and treatment of venereal disease.

### **Hospital Accommodation.**

Cases of infectious disease occurring in the Burgh are now treated in the District Hospital, Roadmeetings, and are charged at a special rate agreed upon by the Town Council and District Committee. This arrangement was in force until 15th May, 1930.

### Factory and Workshops.

These were regularly inspected by the Sanitary Staff. 9 visits of inspection were made to the factories, 12 to workshops, and 4 to bakehouses. There are no underground bakehouses.

### Milk and Dairies (Scotland) Act, 1914.

There are 2 registered cowkeepers within the Burgh. There are also 22 retailers of milk registered within the Burgh, 18 of these come from outwith the area and retail the milk from carts, while the remaining four are registered in regard to premises from which milk is retailed.

### Offensive Trades and Slaughterhouse.

The skinnery and tanwork come under this heading. These were regularly inspected by the Sanitary Staff and found to be conducted in a satisfactory manner. There is one slaughterhouse within the Burgh, and this is also conducted in a satisfactory manner. The following statement shows the number of animals slaughtered and also the condemnations during the year.

### Animals Slaughtered, 1930.

Oxen.	Bulls.	Cows.	Heifers.	Calves.	Sheep.	Lambs.	Pigs.
1,040	2	28	130	85	1,991	57	279

#### A. CONDEMNATIONS FOR ALL CAUSES (INCLUDING TUBERCLE). NUMBER OF CARCASSES CONDEMNED.

Cattle.		Calves.		Sheep.		Pigs.	
Whole.	Part.	Whole.	Part.	Whole.	Part.	Whole.	Part.
5	2	—	—	10	—	—	—

#### B. CONDEMNATIONS FOR TUBERCLE ONLY. NUMBER OF CARCASSES CONDEMNED.

Cattle.		Calves.		Pigs.	
Whole.	Part.	Whole.	Part.	Whole.	Part.
3	2	—	—	—	—

#### Percentage of condemnations to animals slaughtered.

41	·16	—	—	·48	—	—	—	·25	·16	—	—	—	—
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J. HUME PATTERSON,

*Medical Officer of Health.*



COUNTY OF LANARK.

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DISTRICT OF THE MIDDLE WARD.

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ANNUAL REPORT

1930.

# STAFF.

## PUBLIC HEALTH DEPARTMENT.

### MIDDLE WARD DISTRICT.

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#### County and District Medical Officer—

J. HUME PATTERSON, F.R.F.P.S.(G.), D.P.H.

#### Tuberculosis Officers and Assistant M.O.H.—

J. M'CALLUM LANG, M.D., D.P.H.

DAVID R. HAMILTON, M.A., M.B., Ch.B., D.P.H.

GEO. W. MURRAY, M.B., Ch.B., D.P.H.

DOUGLAS BROWN, M.B., Ch.B., D.P.H.

LESLIE J. LANG, M.B., Ch.B., D.P.H.

#### District Sanitary Inspector—

JOHN MILLAR.

#### Inspector of Buildings—

WILLIAM MARTIN.

#### District Meat Inspector, etc.—

ALEX. CAMERON.

LOCAL SANITARY INSPECTORS,	-	-	-	-	9
NURSE HEALTH VISITORS,	-	-	-	-	17
NURSE SANITARY INSPECTORS,	-	-	-	-	12
SUPERINTENDENTS OF SLAUGHTER-HOUSES,	-	-	-	-	7
ASSISTANT BUILDINGS INSPECTORS,	-	-	-	-	2

# STAFF.

## PUBLIC HEALTH HOSPITALS.

### MIDDLE WARD DISTRICT.

#### Medical Officer—

J. HUME PATTERSON, F.R.F.P.S.(G.), D.P.H.

<i>County Hospital, Motherwell,</i> (232 beds)	-	-	Dr. JOHN REID, Resident Physician-Superintendent.
			Dr. JOHN S. DRUMMOND, Resident Assistant Physician.
			Dr. ALEX M'LEAN, Resident Assistant Physician.
			Miss M. THOMSON, Matron.
<i>Lightourn Joint-Hospital, Shettleston,</i> (60* beds)			Dr. H. M. DAVIE, Resident Physician-Superintendent.
			Miss E. TOWNSEND, Matron.
<i>County Orthopædic Hospital, Stonehouse,</i> (60 beds)			Dr. ALEXANDER SMITH, Resident Physician-Superintendent.
			Dr. A. H. M'LEAN, Visiting Physician.
			Miss A. SHORE, Matron.
<i>County Sanatorium, Shotts,</i> (52 beds)	-	-	Dr. D. R. HAMILTON, Physician-Superintendent.
			Dr. J. M'MILLAN, Visiting Physician.
			Miss ISA KEIR, Matron.
<i>County Sanatorium, Uppertown,</i> (46 beds)	-	-	Dr. J. M'CALLUM LANG, Physician-Superintendent.
			Dr. RICHARD RAE, Visiting Physician.
			Miss H. J. MORE, Matron.
<i>Hairmyres Colony,</i> (232 beds)	-	-	Dr. JAMES JOHNSTONE, Resident Physician-Superintendent.
			Dr. ALEX. G. THOMSON, Resident Assistant Physician.
			Miss M. LAIRD, Matron.
<i>County Maternity Hospital, Bellshill,</i> (48 beds)	-	-	Dr. H. J. THOMSON, Physician-Superintendent.
			Dr. JANET B. C. WAUGH, Resident Assistant Physician.
			Miss A. CRAWFORD, Matron.
<i>County Convalescent Home, Calderbank House,</i> (30 beds)	-	-	Dr. LESLIE J. LANG, Physician-Superintendent.
			Mrs. J. M'DOUGALL, Matron.
† <i>Blantyre Hospital,</i> (10 beds)	-	-	Dr. DOUGLAS BROWN, Visiting Physician.
			Miss JESSIE KEIR, Matron.
<i>Dalserf Hospital,</i> (10 beds)	-	-	Dr. ALEXANDER SMITH, Visiting Physician.
			Miss MARY LAMONT, Matron.

\* 15 beds owned by the Middle Ward District Committee.

† Closed as from 15/7/30 and patients transferred to County Hospital, Lanark.

## COUNTY OF LANARK.

## DISTRICT OF THE MIDDLE WARD.

(Area, 184,683 acres.)

# Report by the Medical Officer of Health

*FOR THE YEAR 1930.*

**VITAL STATISTICS.**

The **Area** of the District was unchanged, and at the close of the year was **184,683** acres.

The acreage and population of each parish is stated in Table B.

The density of population was 1.29 persons to the acre.

The **population** at the middle of the year has been estimated from local sources, at **239,000**, the same as last year.

The number of inhabited houses in the District, according to the Valuation Roll, was **45,448**, an increase of 370, compared with the year 1929. The number of uninhabited houses, according to the Roll, was 503, compared with 764 the previous year.

**Statistical Tables.**—Table A shows the birth-rate and death-rate per thousand of the population, and the infantile deaths per thousand births. It also shows the birth and death rates and infantile deaths for each year since 1921, and the average rates for the decennial periods between 1891 and 1930.

Table B shows the acreage, births, and deaths for the year in each parish and registration district, with the deaths classified according to cause, and Table C shows the deaths classified according to cause and age periods.

The **Births** registered numbered **5,034**—males, 2,480; females, 2,554; 431, or 8.5 per cent., were illegitimate. The birth-rate per 1,000 of the population was 21.0, which is the second lowest rate ever recorded in the Middle Ward District. The lowest rate previously recorded, viz., 20.9, occurred in 1929, and reference to Table A shows that for many years the rate has undergone an almost unbroken fall. This is the first occasion since 1920 that an increase over the previous year has been recorded.











TABLE C.—MIDDLE WARD.—Year 1930.—Deaths classified according to cause and age periods, and corrected for Institutions, &amp;c.

Population, 239,000; Acreage, 184,683; Registered Births, { Legitimate, M., 2,314; F., 2,387;  
 { Illegitimate, M., 166; F., 167; Total, 5,034. Deaths under 1 year, { Legitimate, 411  
 { Illegitimate, 20,

CAUSE OF DEATH.	Registered in District.	Transferred from other Districts.	Transferred to other Districts.	Nett Deaths.	NETT DEATHS AT DIFFERENT AGE PERIODS.																		Rates per 1,000 Population.	Registered in Institutions in District.				
					Weeks.					Months.					Years.													
					-1	1-	2-	3-	Total -4	1-	3-	6-	9-	Total -12	1-	5-	10-	15-	25-	35-	45-	55-			65-	75 and over.		
All Causes { Certified, - { Uncertified, -	2,458 2	354 ...	183 1	2,629 1	117 ...	24 ...	16 ...	11 ...	168 ...	70 ...	70 ...	72 ...	51 ...	431 ...	197 ...	72 ...	47 ...	118 ...	140 1	183 ...	250 ...	399 ...	441 ...	351 ...	11.0 .0042	546 ...		
Typhoid Fever, -	2	...	...	2	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	.0084	2	
Smallpox, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Measles, -	52	...	1	51	...	...	...	...	...	...	...	5	9	14	35	2	...	...	...	...	...	...	...	...	...	.2134	11	
Scarlet Fever, -	3	...	...	3	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	.0125	3	
Whooping-Cough, -	31	1	...	32	...	...	...	...	...	5	5	5	2	17	13	2	...	...	...	...	...	...	...	...	...	.1338	9	
Diphtheria, -	21	1	1	21	...	...	...	...	...	...	...	2	3	5	4	8	2	2	...	...	...	...	...	...	...	.0878	21	
Influenza, -	60	1	...	61	...	...	...	...	...	2	1	2	...	5	2	...	1	2	4	5	11	11	10	10	...	.2552	2	
Cerebro-Spinal Fever, -	7	1	...	8	...	...	...	...	...	...	1	1	1	3	3	...	...	2	...	...	...	...	...	...	...	.0334	7	
Erysipelas, -	5	...	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	1	1	...	.0167	3	
Encephalitis Lethargica, -	9	1	2	8	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	3	1	2	...	...	...	.0334	4	
Tetanus, -	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Dysentery, -	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	.0042	...
Acute Infective Jaundice, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Mumps, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Acute Anterior Poliomyelitis, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Pulmonary Tuberculosis, -	143	6	19	130	...	...	...	...	...	...	1	...	...	1	3	4	6	30	29	21	17	16	3	...	...	.5439	60	
Meningeal Tuberculosis, -	33	3	6	30	...	...	...	...	...	...	2	3	1	6	16	5	1	1	1	...	...	...	...	...	...	.1254	19	
Abdominal Tuberculosis, -	15	...	4	11	...	...	...	...	...	...	...	...	...	...	2	3	1	3	1	...	...	...	1	...	...	.0460	5	
Other Tuberculosis, -	22	4	2	24	...	...	...	...	...	...	...	...	...	...	3	2	1	9	4	1	1	3	...	...	...	.1004	16	
Septicæmia and Pyæmia, -	8	9	1	16	...	1	...	1	2	...	...	1	...	3	...	...	2	1	2	3	1	3	1	...	...	.0669	4	
Rheumatic Fever, -	8	3	...	11	...	...	...	...	...	...	...	...	...	...	...	1	2	2	2	1	1	1	1	...	...	.0460	...	
Malignant Diseases, -	183	60	4	239	...	...	...	...	...	...	...	...	...	...	...	1	2	2	9	25	48	57	75	20	1.0	15		
Meningitis (Simple), -	20	3	1	22	...	...	...	1	1	...	1	6	2	10	5	3	1	...	1	...	2	...	...	...	...	.0920	7	
Cerebral Hæmorrhage, -	197	11	13	195	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	5	19	55	66	49	...	.8163	28	
Other Nervous Diseases, -	75	14	20	69	...	...	...	...	...	1	...	...	...	1	2	2	2	8	5	6	11	14	13	5	...	.2887	34	
Organic Heart Diseases, -	295	17	20	292	...	...	...	...	...	...	1	...	...	1	1	2	3	13	12	23	27	73	82	55	1.2217	31		
Other Circulatory Diseases, -	73	12	9	76	1	...	...	...	1	...	...	...	1	2	2	...	...	...	2	2	6	17	18	27	...	.3179	16	
Bronchitis, -	139	3	3	139	1	4	2	...	7	9	8	4	4	32	1	...	1	...	...	9	5	24	43	24	...	.5815	9	
Pneumonia (All Forms), -	259	17	14	262	...	...	1	1	2	15	17	19	11	64	54	6	3	10	14	22	23	25	23	18	1.0962	93		
Other Respiratory Diseases, -	29	...	1	28	...	...	...	...	...	...	...	2	...	2	2	1	...	...	...	1	5	8	7	2	...	.1171	2	
Diabetes, -	30	6	...	36	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	7	9	14	2	...	.1506	1	
Pernicious Anæmia, -	13	1	1	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	3	5	1	...	.0543	1	
Diseases of Ductless Glands, -	9	4	...	13	...	...	...	...	...	...	...	1	1	2	1	...	...	1	1	...	2	3	2	1	...	.0543	1	
Appendicitis, Typhilitis, -	1	20	...	21	...	...	...	...	...	...	...	...	...	...	...	6	3	3	2	6	1	...	...	...	...	.0878	...	
Liver Diseases (not malignant), -	14	9	1	22	1	...	...	...	1	...	...	...	...	1	1	1	...	1	1	2	3	6	2	4	...	.0920	2	
Other Digestive Diseases, -	56	37	3	90	...	...	...	1	1	2	2	5	...	10	9	9	4	1	6	6	13	16	10	6	...	.3766	9	
Nephritis, Bright's Disease, -	66	10	2	74	...	...	...	...	...	...	...	...	...	...	2	2	2	2	6	4	16	15	18	7	...	.3096	6	
Dis. of Genito Urinary System, -	10	9	...	19	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	4	6	8	...	.0794	...	
Dis. of Female Genital Organs, -	...	3	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Puerperal Sepsis, -	24	1	5	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	...	...	.0125	...	
Diseases and Accidents of Pregnancy, &c., -	23	1	5	19	...	...	...	...	...	...	...	...	...	...	...	...	...	3	7	10	...	...	...	...	...	.0837	24	
Congenital Hydrocephalus, -	8	...	1	7	...	...	...	...	...	...	1	3	2	6	1	...	...	2	8	8	1	...	...	...	...	.0794	16	
Congenital Heart Disease, -	9	1	...	10	5	...	...	1	6	2	...	...	...	8	1	...	1	...	...	...	...	...	...	...	...	.0293	1	
Congenital Malformations, -	13	...	...	13	8	1	1	...	10	1	2	...	...	13	...	...	...	...	...	...	...	...	...	...	...	.0419	...	
Infantile Convulsions, -	28	...	2	26	6	1	1	...	8	7	2	3	2	22	4	...	...	...	...	...	...	...	...	...	...	.0543	1	
Diarrhœa (under 2 years), -	36	2	1	37	...	2	...	...	2	7	7	3	9	28	9	...	...	...	...	...	...	...	...	...	...	.1087	5	
Premature Birth, -	87	...	6	81	61	4	5	3	73	7	1	...	...	81	...	...	...	...	...	...	...	...	...	...	...	.1548	5	
Injury at Birth, -	5	...	...	5	5	...	...	...	5	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	.3389	24	
Atrophy, D. and M., -	67	1	6	62	24	7	2	2	35	6	13	7	1	62	...	...	...	...	...	...	...	...	...	...	...	.0209	...	
Atelectasis, -	8	...	1	7	4	1	2	...	7	...	...	...	...	7	...	...	...											





**Deaths** during 1930 numbered **2,630**, as compared with 2,729 in 1929, the respective death-rates for the two years being 11·0 and 11·4 per 1,000. The deaths from measles increased from 4 to 51, but the deaths from whooping-cough dropped from 101 to 32. Deaths from respiratory diseases decreased from 636 to 490, pneumonia being responsible for 23 deaths fewer than in the previous year, bronchitis 19, and influenza 107.

The deaths of infants under one year numbered 431, which is equivalent to 85·6 deaths per 1,000 births, as compared with 85·3 recorded last year. The deaths are referred to in detail in the portion of the Report dealing with Maternity and Child Welfare.

The number of births exceeded the deaths by 2,404, which constitutes the **natural increase** in population.

TABLE A.—BIRTH-RATES AND DEATH-RATES PER 1,000 OF THE POPULATION. INFANTILE DEATHS PER 1,000 BIRTHS.

Year.	Births.	Birth-rate.	Net Deaths.	Death-rate.	INFANTS UNDER 1 YEAR.	
					Deaths.	Death-rate.
1891 to 1900	62,323	39·1	29,080	18·1	8,098	129·9
1901 to 1910	74,121	38·9	31,188	16·3	9,212	124·2
1911 to 1920	68,201	32·5	30,005	14·3	7,547	119·4
1921 to 1930	59,010	25·2	27,185	11·6	5,289	89·6
1921	7,023	32·1	2,660	12·1	631	89·9
1922	6,364	28·3	2,936	13·0	650	102·1
1923	6,218	26·7	2,620	11·2	481	77·3
1924	6,251	26·3	3,023	12·7	620	99·2
1925	6,176	26·0	2,706	11·4	577	93·4
1926	5,928	25·0	2,618	11·0	489	82·4
1927	5,640	23·9	2,649	11·2	493	87·4
1928	5,382	22·5	2,614	10·9	491	91·2
1929	4,994	20·9	2,729	11·4	426	85·3
1930	5,034	21·0	2,630	11·0	431	85·6

PUBLIC INSTITUTIONS SITUATED WITHIN THE DISTRICT WHERE SOME  
PERSONS NOT BELONGING TO THE DISTRICT DIED AND WHOSE DEATHS  
ARE EXCLUDED.

Name of Institution		Parish where situated	Population. Police Census, 1930	DEATHS.	
				Total during 1930	Allocated to the Middle Ward District
Kirklands Asylum,	-	Bothwell,	304	13	5
Hartwood Asylum,	-	Shotts,	1,447	98	38
Airbles House,	-	Dalziel,	120	1	...
Thrashbush Home,	-	New Monkland,	88	18	5
Muter M'Gill Home, Nerston,	-	East Kilbride,	5	...	...
Omoa House,	-	Shotts,	189	38	31
Annieslea Home, Nerston,	-	East Kilbride,	177	...	...
County Hospital, Motherwell,	-	Dalziel,	338	212	193
Limekilns,	-	East Kilbride,	...	6	2
Auxiliary Infirmary, Philipshall,	-	East Kilbride,	80	1	...
County Orthopædic Hospital, Stonehouse,	-	Stonehouse,	114	9	9
County Sanatorium, Shotts,	-	Shotts,	74	25	25
County Sanatorium, Uppertown,	-	New Monkland,	73	17	15
Hairmyres Colony,	-	East Kilbride,	345	3	2
County Maternity Hospital, Bellshill,	-	Bothwell,	72	54	39
County Convalescent Home, Calderbank House,	-	Old Monkland,	74	32	29
County Hospital, Blantyre,	Blantyre,		...	...	...
County Hospital, Dalserf,	Dalserf,		18	...	...
Craighead House, Blantyre,	-	Blantyre,	10	...	...
Blantyre Cottage Hospital,	-	Blantyre,	...	1	1
St. Vincent Home for Deaf and Blind Children,	-	Old Monkland,	207	1	1
Elmwood Convent,	-	Bothwell,	38	1	1
Collisdene Nursing Home, Strathaven,	-	Avondale,	30	9	1
Children's Home, Mount Vernon,	-	Old Monkland,	36	...	...
Homœopathic Hospital, Mount Vernon,	-	Old Monkland,	36	7	...
Total,			3,875	546	397



PUBLIC INSTITUTIONS SITUATED OUTWITH THE DISTRICT WHERE SOME PERSONS BELONGING TO THE DISTRICT DIED AND WHOSE DEATHS ARE INCLUDED.

*General Hospitals.*

*Poor Law Institutions.*

Glasgow Royal Infirmary, -	171	41 Bothwell Road, Hamilton, -	14
Glasgow Western Infirmary, -	22	69 Hospital Street, Coatbridge, -	3
Glasgow Victoria Infirmary, -	10	Others, - - - - -	13
Edinburgh Royal Infirmary, -	3		
Glasgow Sick Children's Hospital, - - - - -	27		

*Infectious Diseases Hospitals.*

Lightburn Hospital, - -	15	All other Institutions, - -	42
Ruchill Hospital, &c., - -	10		

258

72

TOTAL, 330

DEATHS IN RELATION TO AGE AND CAUSE.—Table C shows the deaths classified according to age and cause. The deaths are here arranged in recognised age-periods, and the percentage proportion of deaths at each age-period is given:—

Infant period,	under 1 year,	431 deaths or 16·4	per cent.
Under school age,	1-5 years, -	197	„ 7·5 „
School age,	5-15 „ -	119	„ 4·5 „
Adolescent,	15-25 „ -	118	„ 4·5 „
Early mature period,	25-45 „ -	324	„ 12·3 „
Late „ „	45-65 „ -	649	„ 24·7 „
Post „ „	65 years and upwards, -	792	„ 30·1 „

Reference to Table A shows that the infantile mortality rate increased from 85·3 in 1929 to 85·6 in 1930, but that the general death-rate fell from 11·4 to 11·0 per thousand of the population in respect of those two years. If, however, the above table be compared with that for 1929, it will be found that, while the percentage proportion of deaths from infancy to adolescence decreased slightly in the aggregate, the percentage deaths at the early and late maturity periods increased. There was a distinct reduction in the percentage proportion of deaths at the post-mature period, compared with the previous year.

**Infectious Diseases.**—The number of deaths due to infectious diseases which are compulsorily notifiable was 524, made up thus:—

Diphtheria, - - -	21	Pulmonary Tuberculosis,	130
Erysipelas, - - -	4	Tuberculosis (all other	
Scarlet Fever, - - -	3	forms), - - -	65
Typhoid Fever, - - -	2	Pneumonia, - - -	262
Puerperal Sepsis, - -	20	Dysentery, - - -	1
Cerebro-spinal Fever,	8	Encephalitis Lethargica,	8

The deaths from infectious diseases not compulsorily notified amounted to 120:—Measles, 51; whooping-cough, 32; diarrhœa, 37. In 47 per cent. of the whooping-cough deaths, the disease was complicated with pneumonia, while no fewer than 72 per cent. of the measles deaths were complicated with the same condition. The prevalence of the various infectious diseases is further referred to in the second portion of the Report.

**Respiratory Diseases.**—The deaths during the year numbered 490, and the following statistics show the deaths and death-rates of the various forms for the past five years:—

Year.	PNEUMONIA.		BRONCHITIS.		INFLUENZA.		OTHER RESPIRATORY DISEASES.		Total Deaths.
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	
1926	206	0·86	142	0·59	88	0·37	35	0·14	471
1927	243	1·03	141	0·59	95	0·40	32	0·13	511
1928	205	0·86	118	0·49	67	0·28	30	0·13	420
1929	285	1·19	158	0·66	168	0·70	25	0·10	636
1930	262	1·09	139	0·58	61	0·25	28	0·11	490

With regard to the 61 deaths from influenza, the disease was complicated with other conditions in 59 of the cases, as follows:—Bronchitis, 7; pneumonia, 22; other respiratory disease, 6; other complications, 24.

**Malignant Diseases.**—The deaths falling under this heading numbered 239, as compared with 211 in the previous year. In 195 cases carcinoma was stated as the cause of death, in 13 cases sarcoma, in 6 cases epithelioma, in 1 case endothelioma, and in 24 the nature of the malignant disease was not defined. The following table shows the distribution of the disease according to age and sex, and according to the organs and parts of the body affected:—



## Diabetes.

Deaths from diabetes numbered 36.

The following table classifies the deaths since 1921, according to age and sex groups:—

Age Period		1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
1 - 5	M.	1	—	—	—	—	—	—	—	—	—
	F.	1	—	—	—	—	—	—	—	—	—
5 - 10	M.	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	—	—	—	—	—
10 - 15	M.	—	—	—	—	1	—	—	—	1	—
	F.	—	—	—	—	1	—	—	—	—	—
15 - 25	M.	—	—	2	1	—	3	—	1	2	—
	F.	1	—	1	1	1	1	1	—	1	—
25 - 35	M.	1	—	3	—	2	—	1	—	—	—
	F.	3	2	—	—	—	1	1	—	—	3
35 - 45	M.	1	—	1	2	—	—	2	1	1	—
	F.	—	1	—	—	2	—	1	1	4	1
45 - 55	M.	—	—	2	—	—	1	—	1	2	—
	F.	1	3	1	2	2	3	3	1	3	7
55 - 65	M.	3	1	2	1	—	3	2	1	2	1
	F.	2	3	2	1	6	8	11	9	3	8
65 - 75	M.	1	3	2	—	2	—	1	1	1	4
	F.	1	1	6	5	5	4	6	3	8	10
75 +	M.	—	—	1	—	1	1	—	1	—	—
	F.	—	1	—	1	—	1	2	—	1	2
TOTAL,	M.	7	4	13	4	6	8	6	6	9	5
	F.	9	11	10	10	17	18	25	14	20	31
GRAND TOTAL,		16	15	23	14	23	26	31	20	29	36

In four cases which died during the year, insulin was being supplied by the Local Authority, but, so far as the other fatal cases are concerned, it is not known whether this form of treatment was being carried out by private arrangement or with assistance from the Insurance Committee or the Parish Council.

*Supply of Insulin.*—Insured persons are entitled to a supply of insulin from the Insurance Committees, whilst those who did not come within the purview of this Authority are dealt with by the District Committee, under the Public Health (Amendment) Act, 1925.

The Middle Ward Scheme is limited to the supply of insulin to persons suffering from diabetes who are deemed to be in necessitous circumstances, and whose treatment is being supervised by a medical practitioner.

The following particulars relate to cases supplied with insulin during the year :—

Sex	Age	Date of first supply	Daily dose	Total amount supplied during 1930	Result of Insulin treatment
F.	64	15-2-26	7 units.	2,000 units.	I.S.Q. Fit.
F.	26	13-3-28	30 „	300 „	I.S.Q. Treatment discontinued.
F.	55	3-5-28	40 „	400 „	Well. Treatment discontinued.
F.	71	24-11-28	20 „	2,600 „	Improved. Fit.
M.	12	7-12-28	11 „	1,800 „	I.S.Q. Not fit.
M.	53	13-8-29	20 „	15,500 „	Improved. Not fit.
F.	55	12-9-29	30 „	8,500 „	Improved. Fit.
F.	56	20-9-29	10 „	400 „	Died.
F.	58	23-9-29	10 „	500 „	Died.
F.	60	25-10-29	20 „	8,400 „	Died.
F.	58	23-11-29	— „	1,100 „	Well. Treatment discontinued.
F.	37	9-12-29	40 „	12,500 „	—
F.	65	18-2-30	20 „	300 „	Died.
M.	—	-3-30	— „	300 „	Died in Shotts Sanatorium.
F.	27	29-3-30	20 „	2,700 „	Died.
F.	55	23-4-30	20 „	1,000 „	Improved. Fit.
F.	59	-7-30	20 „	3,300 „	Not Fit.
F.	18	7-30	40 „	3,000 „	Improved. Fit
F.	57	28-8-30	16 „	1,800 „	Worse. Not fit.
F.	42	3-11-30	20 „	600 „	Stopped insulin treatment because of non-compliance with Medical Practitioner's instructions as to diet.
F.	45	14-11-30	30 „	2,000 „	Improved. Not fit.
F.	54	22-11 30	40 „	1,600 „	I.S.Q. Fit.
F.	52	22-11 30	60 „	2,600 „	I.S.Q.



## PREVALENCE OF INFECTIOUS DISEASE.

The diseases included under this heading are classified in relation to notification, and are divided into two groups. Group I includes diseases which are compulsorily notifiable (a) under the Notification Act, (b) by adoption under the Notification Act, and (c) by order of the Department of Health for Scotland; and Group II, diseases not compulsorily notifiable. The diseases included in these groups are as follows :—

### GROUP I.

(a)	(b)	(c)
Smallpox.	<i>August. 1906.</i>	<i>1st August, 1912.</i>
Diphtheria.	Cerebro-spinal Meningitis.	Pulmonary Tuberculosis.
Scarlet Fever.	<i>24th October, 1912.</i>	<i>1st July, 1914.</i>
Typhus Fever.	Tetanus.	All forms of Tuberculosis.
Typhoid Fever.	Anthrax.	<i>1st November, 1918.</i>
Puerperal Fever.	Glanders.	Ophthalmia Neonatorum.
Erysipelas.	Actinomycosis.	<i>1st August, 1919, and</i> <i>21st November, 1927.</i>
Continued Fever.		Malaria.
Cholera.		Dysentery.
Relapsing Fever.		Acute Primary Pneumonia.
		Acute Influenzal- Pneumonia.
		<i>21st December, 1925.</i>
		Infective Jaundice.
		Infantile Paralysis.
		Polio-Encephalitis.
		Encephalitis Lethargica.
		<i>25th March, 1927.</i>
		*Chickenpox.
		<i>1st October, 1929.</i>
		Puerperal Pyrexia.

### GROUP II.

Measles.	Ringworm.	German Measles.	Itch.
Mumps.	Scabies.	Whooping-Cough.	Eczema.
Conjunctivitis.	Impetigo.		

\* Now made compulsorily notifiable until 31st Decr., 1931, vide the Public Health (Chickenpox) Amendment Regulations, dated 20th Decr., 1930.

TABLE E—NUMBER OF CASES OF INFECTIOUS SICKNESS RECOGNISED IN EACH PARISH DURING 1930.

PAMPH.	Smallpox.	Diphtheria.	Erysipelas.	Scarlet Fever.	Typhus Fever.	Typhoid Fever.	Continued Fever.	Puerperal Fever.	Puerperal Pyrexia.	Cerebro-Spinal Fever.	Infantile Paralysis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Malaria.	Dysentery.	Primary Pneumonia.	Influenza-Pneumonia.	Tetanus.	Encephalitis Lethargica.	Acute Infective Jaundice.	Chickenspox.	Total.
1. Avondale, -	-	7	6	12	-	1	-	1	3	-	-	1	13	17	-	-	-	6	-	-	-	10	109
2. East Kilbride, -	-	14	1	20	-	-	-	-	-	-	-	-	10	7	-	-	12	1	-	-	-	1	66
3. Glasgow, -	-	2	2	3	-	2	-	-	1	-	-	-	-	-	-	-	5	2	-	-	-	-	17
4. Stonehouse, -	-	11	1	5	-	1	-	-	3	-	-	-	4	4	-	-	2	-	-	-	1	15	47
First Division,	-	34	10	40	-	4	-	-	7	-	2	1	27	28	-	-	49	9	-	-	1	26	239
5. Blantyre, -	-	47	19	65	-	4	-	-	12	1	1	13	18	33	-	-	111	4	-	1	-	69	399
6. Bothwell, -	-	324	53	378	-	24	-	-	17	5	1	10	104	98	-	-	486	6	-	5	-	319	1,869
7. Cambuslang, -	-	46	25	102	-	48	-	-	8	1	1	22	44	49	-	-	112	22	-	2	-	143	629
8. Cambusnethan, -	-	52	22	69	-	3	-	-	5	1	-	5	35	27	-	-	68	3	-	-	-	89	384
9. Dalserf, -	-	29	12	80	-	11	-	-	4	1	-	3	23	15	-	-	30	5	-	-	10	10	240
10. Dalziel, -	-	4	-	5	-	-	-	-	-	-	-	-	2	-	-	-	5	1	-	-	-	7	24
11. Hamilton, -	-	21	3	31	-	1	-	-	3	1	-	-	12	6	-	-	30	-	-	-	-	20	128
Second Division,	-	523	134	730	-	91	-	-	49	10	2	53	238	228	-	-	842	41	-	8	10	657	3,673
12. New Monkland, -	-	37	8	28	-	3	-	-	5	2	-	2	19	19	-	-	17	10	-	-	-	53	203
13. Old Monkland, -	-	45	17	94	-	11	-	-	3	2	-	11	23	21	-	-	100	10	-	3	-	52	400
14. Shotts, -	-	112	24	109	-	6	-	-	2	2	1	12	35	42	-	-	81	12	-	-	-	83	529
Third Division,	-	194	49	231	-	20	-	-	10	6	1	25	77	82	-	-	198	32	-	3	-	188	1,132
Middle Ward,	-	751	193	1,001	-	115	-	-	66	16	5	79	342	338	-	-	1,089	82	-	11	11	871	5,044
Cases notified in Institutions of persons belonging to other Areas, -	-	-	9	-	-	-	-	2	1	-	-	-	3	-	-	-	6	-	-	-	-	-	26

**Smallpox, Typhus Fever, Continued Fever, Relapsing Fever, Anthrax, Glanders, Actinomycosis, Polio Encephalitis, Cholera, Tetanus, Malaria, and Dysentery.**

No notification was received in respect of any of these diseases.

**Diphtheria and Membranous Croup.**

Table D1 shows the prevalence of diphtheria during the past five years, and during each quinquennial period from 1891 to 1930.

TABLE D1.

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
1891-95 (Average)	210	74	35.1	1.39	4.9
1896-1900 „	144	35	24.3	0.85	2.0
1901-05 „	151	34	22.3	0.80	1.8
1906-10 „	383	41	10.8	1.93	2.0
1911-15 „	336	32	9.9	1.63	1.5
1916-20 „	304	29	10.0	1.42	1.3
1921-25 „	303	29	9.6	1.31	1.3
1926-30 „	582	19	3.3	2.44	0.8
1926	355	16	4.5	1.49	0.7
1927	463	10	2.1	1.96	0.4
1928	627	28	4.4	2.62	1.1
1929	712	20	2.8	2.97	0.8
1930	751	21	2.8	3.14	0.8

The number of cases of diphtheria is greater than ever previously recorded.

After admission to hospital the diagnosis was revised in 235 cases, as follows:—Positive swab, 104; sore throat, 81; scarlet fever, 18; naso-pharyngitis, 2; measles, 6; tonsillitis, 7; rubella, 1; whooping-cough, 3; adenitis, 1; abscess of cheek, 1; pneumonia, 3; empyema, 1; otitis media, 1; conjunctivitis, 1; diarrhoea, 1; tonsillar abscess, 2; paratyphoid fever B, 1; Vincent's angina, 1. In addition, in 67 cases no evidence of diphtheria could be detected; in 3 cases the diphtheria was complicated with scarlet fever, and in 1 with whooping-cough.

The cases and deaths during each month and at certain age-periods are shown below :—

	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Cases,	87	60	51	49	89	63	44	44	74	62	80	48	751
Deaths,	2	2	2	—	5	1	—	1	1	3	1	3	21

Ages,	-1	1-5	5-15	15-25	25-45	45-65	65+	All ages.
Cases,	10	188	411	89	46	6	1	751
Deaths,	5	4	10	2	—	—	—	21

The number of cases removed to hospital was 715, or 95·2 per cent. of the total.

Antitoxin was administered by private practitioners to 35 cases prior to their admission to hospital, and to 10 cases which were treated at home. 26 cases which were not removed to hospital received no serum, nor was it given to 680 cases before their admission.

During the year 264,000 units of antitoxin were supplied through police stations to medical practitioners. In addition to this, practitioners were supplied with 192,000 direct from the Public Health Department or through local dispensaries.

*Contact Carriers.*—Systematic swabbing of household contacts was carried out as in former years, and 172 carriers were discovered. A modified form of isolation was enforced, and carriers were kept under observation until two successive negative results were obtained. In the absence of signs or symptoms of recent sore throat, they were not removed to hospital unless some pathological condition of the throat or nose suggested that they might become chronic carriers, in which event they were admitted to hospital for suitable treatment and operation if necessary. The temporary nature of the carrier state is shown in the following statement, which sets forth the interval in days that elapsed between the first positive swab and the second negative result in 168 cases :—

0-7	8-14	15-21	22-28	29-35	36-42	43-49	Over 49
81	63	9	7	4	1	3	—

In 2 cases a persistently positive swab was tested for virulence and the organism found to be avirulent.

The distribution of cases and deaths throughout the district is shown in Tables E and B respectively.

**Scarlet Fever.**

Table D2 shows the prevalence of scarlet fever during the past five years, and during each quinquennial period from 1891 to 1930.

TABLE D2.

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population
1891-95 (Average)	1,116	34	3.06	7.42	2.2
1896-1900	1,035	41	3.98	6.13	2.4
1901-05	645	25	3.90	3.44	1.3
1906-10	927	24	2.54	4.67	1.1
1911-15	1,179	29	2.43	5.70	1.3
1916-20	929	21	2.61	4.36	0.9
1921-25	1,168	22	1.9	5.07	0.9
1926-30	835	6	0.72	3.51	0.25
1926	877	11	1.25	3.70	0.4
1927	545	5	0.92	2.31	0.2
1928	839	7	0.83	3.51	0.3
1929	912	2	0.2	3.81	0.08
1930	1,001	3	0.3	4.18	0.13

The number of cases notified still shows an increased incidence over the average for the quinquennial period, 1926-30, but the mortality rate is with the exception of 0.2 in 1929, the lowest hitherto recorded. The notifications received each month averaged approximately 83, the actual number being below the average for the first six months of the year.

The predominating type of disease was mild, and many cases were so mild as to escape recognition at first. No common source of infection was discovered in any particular series of cases, infection being apparently conveyed by personal contact.

The number of cases removed to hospital was 943 or 94.2 per cent. of all the cases notified.

The age incidence of cases and deaths for the whole district was :—

Ages,	-1	1-5	5-15	15-25	25-45	45-65	65+	All ages.
Cases, -	13	267	633	58	26	4	—	1,001
Deaths,	—	3	—	—	—	—	—	3



*“Return” Cases.*—33 of the cases discharged from hospital during the year were apparently still capable of carrying infection, and may have given rise to 39 “return” cases. Of the infecting cases, it was found that in 22 no departure from apparently normal health could be found, 8 had developed a nasal discharge, 1 had excoriation of nose, and 2 had developed a discharging ear.

The interval which elapsed between the dismissal from hospital of the infecting cases and the onset of illness in the “return” cases was as follows:—

Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.
20	13	4	2

*Altered Diagnosis.*—Of the 943 cases admitted to hospital, the diagnosis of scarlet fever was regarded as doubtful in 56 cases, while in 25 no evidence of the presence of scarlet fever could be detected. The diagnosis was revised in 33 other cases, as follows:—Measles, 5; sore throat, 3; erythema, 1; enlarged tonsils, 1; enteritis, 1; pneumonia, 4; nephritis, 4; bronchitis, 3; tonsillitis, 2; vaginitis, 1; dermatitis, 1; eczema, 1; otitis media, 1; naso-pharyngitis, 1; teething, 1; chickenpox, 3. In one case the scarlet fever was complicated with measles and in another with chickenpox.

The distribution of cases and deaths is shown in Tables E and B respectively.

### Typhoid Fever.

TABLE D3

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
1891-95 (Average)	465	56	11.95	3.0	4.2
1896-1900	350	45	12.72	2.0	2.6
1901-05	294	40	13.54	1.5	2.1
1906-10	206	19	9.40	1.0	0.9
1911-15	111	13	11.09	0.5	0.5
1916-20	86	11	12.74	0.3	0.5
1921-25	55	6	10.4	0.2	0.2
1926-30	37	2	5.4	0.15	0.08
1926	18	3	16.6	0.1	0.12
1927	8	2	25.0	0.04	0.08
1928	28	3	10.7	0.1	0.12
1929	18	2	11.1	0.07	0.08
1930	115	2	1.7	0.48	0.08

The incidence of typhoid fever was the highest since the year 1912, about 70 per cent. of the cases being paratyphoid B infections. The incidence was heaviest in Cambuslang Parish (48 cases); Bothwell Parish (24 cases); Dalserf Parish (11 cases); and Old Monkland Parish (11 cases).

The monthly and age incidence of cases and deaths was as follows :—

Month—	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cases, .	—	6	1	—	1	39	47	14	3	1	2	1	115
Deaths, -	—	—	1	—	—	—	1	—	—	—	—	—	2
Ages.	.		-1	1-5	5-15	15-25	25-45	45-65	All ages.				
Cases,	-	—	—	13	40	43	13	6	115				
Deaths,	-	—	—	1	—	1	—	—	2				

113 cases were removed to hospital (although 1 was admitted as gastro-enteritis and 1 as diphtheria), and in 31 cases the diagnosis of typhoid fever was found to require revision. The altered diagnoses were as follows :—Positive Widal, 12; diarrhoea, 2; influenza, 1; erythema, 1; carcinoma, 1; pulmonary tuberculosis, 1; pityriasis rubra, 1; pneumonia, 1; negative, 11. The distribution of cases and deaths is shown on Tables E and B respectively.

### Cerebro-Spinal Meningitis.

10 cases were notified; 4 cases admitted to hospital as meningitis (unqualified), 1 as encephalitis lethargica, and 1 as tuberculous meningitis, proved to be cases of cerebro-spinal meningitis. 2 patients died at home, and the others received hospital treatment. 9 patients died in hospital, the certified cause in two cases being pneumococcal meningitis and in one tuberculous meningitis. Of the five patients who recovered the diagnosis was revised in 3 cases, as follows :—Simple meningitis, 1; lobar pneumonia, 1; no apparent disease, 1.

### Puerperal Fever.

The number of cases notified was 76, and the number of deaths 20, as compared with 98 cases and 14 deaths the previous year.

The incidence of this disease is dealt with more fully in the Maternity and Child Welfare Section of the Report.

### **Puerperal Pyrexia.**

The number of cases notified was 67. The disease is dealt with in detail in the Maternity and Child Welfare Section of the Report.

### **Erysipelas.**

202 cases were notified, and 4 deaths registered. 66 cases were removed to hospital.

### **Ophthalmia Neonatorum.**

79 cases, as compared with 73 in 1929, were notified. The disease is dealt with in the Maternity and Child Welfare Section of the Report.

### **Acute Infective Jaundice.**

During the year 11 cases were brought to the notice of the Department, and 6 received institutional treatment. All the patients were miners, employed in a particular section of the same colliery. The outbreak was discovered on 29/4/30 during the course of a consultation with a local practitioner on a case of convalescent pneumonia. He referred to the occurrence of several cases of jaundice in his practice, and agreed that they should be further investigated.

Spirochaetes were found in abundance in the urine of a man (W.E.) who was in his twelfth day of illness, and, following on this, ten cases were identified, viz. :—

- (1) J.A., aged 42.—Employed at D. Colliery, P. Section, as a roadsman. Onset, 28/12/29; treated in the County Hospital, Motherwell, from 6/1/30 to 1/2/30; blood and urine (taken on tenth day) negative for spirochaetes; hospital diagnosis, catarrhal jaundice.

*Symptoms.*—Shivering, headache, pains in arms and legs, great weakness; jaundice recognised on seventh day.

- (2) J.K., aged 21.—Employed at D. Colliery, P. Section, as a pony driver. Onset, 31-12-29; treated at home; no examination of urine carried out because of lapse of time.

*Symptoms.*—Shivering, headache, high temperature, vomiting, anorexia, extreme weakness; definite jaundice not recognised till fourteenth day.

- (3) A.W., aged 39.—Employed at D. Colliery, P. Section, as a roadsman. Onset, 26/3/30; treated in Royal Infirmary Glasgow, from 1/4/30 to 15/4/30; hospital diagnosis, pyelitis; urine examined, 6/5/30; films and G.P. negative; urine re-examined, 12/5/30; occasional spirochætes on films; (G.P. negative, 12/6/30).

*Symptoms.*—Shivering, high temperature, abdominal and lumbar pain, vomiting, constipation, blood and pus in urine; jaundice on fifth day.

- (4) A.P., aged 32.—Employed at D. Colliery, P. Section, as a fireman. Onset, 29/3/30; treated at home; urine examined, 6/5/30, films and G.P. negative; re-examined, 13/5/30, films negative, G.P. negative, 19/6/30.

*Symptoms.*—Shivering, high temperature, muscular pains, severe frontal headache, constipation, delirium and insomnia, great prostration; jaundice on fourth day.

- (5) W.E., aged 58.—Employed at D. Colliery, P. Section, as an oncost worker. Onset, 19/4/30; treated at home; urine examined, 30/4/30, many spirochætes on direct film, guinea-pig negative; re-examined, 12/5/30, films negative.

*Symptoms.*—Shivering, high temperature, lumbar and leg pains, anorexia, marked asthenia, insomnia and delirium, epistaxis; jaundice on third day.

- (6) R.W., aged 19.—Employed at D. Colliery, P. Section, as a pony driver. Onset, 26/4/30; admitted to the County Hospital, Motherwell, 3/5/30, and discharged on 21/6/30; urine examined, 5/5/30, few spirochætes on films, G.P. negative; re-examined, 7/5/30, few spirochætes by direct film, G.P. negative; further examinations on 12/5/30 and 21/5/30, films negative, G.Ps. negative.

*Symptoms.*—Shivering, frontal headache, abdominal and leg pains, high temperature, excessive vomiting, constipation, insomnia, delirium, prostration; jaundice on third day.

- (7) T.W., aged 21.—A brother of Case No. 3, employed at D. Colliery, P. Section; took over his brother's job as roadsman fourteen days before onset of illness. Onset, 4/5/30; admitted to the County Hospital, Motherwell, 6/5/30, and discharged on 27/5/30; blood examined, 7/5/30, G.P. positive; urine examined on 12/5/30 and 21/5/30, films negative, G.Ps. negative.

*Symptoms.*—Sudden onset with shivering, frontal headache, backache, high temperature, and prostration, slight discoloration of conjunctiva on fifth day, and bile in urine; no discoloration of skin, and the jaundice might easily have been overlooked.

- (8) S.R., aged 27.—Employed as a shot firer at D. Colliery, P. Section. Onset, 22/5/30; treated at home; urine examined, 29/5/30, 3/6/30, 5/6/30—negative.

*Symptoms.*—Severe headache, pains in limbs, insomnia, nausea, vomiting, constipation, high temperature; jaundice; protracted convalescence.

- (9) J.C., aged 28.—Employed as a machineman at D. Colliery, P. Section. Onset, 28/7/30; admitted to Royal Infirmary, Glasgow, as a case of acute appendicitis; diagnosis of spirochaetal jaundice confirmed bacteriologically. This man had been off work since 18/7/30, and the incubation period in his case was fixed at not less than 10 days.

*Symptoms.*—Shivering, headache, acute abdominal pain; jaundice on 5th day.

- (10) A.P., aged 44.—Employed as a miner at D. Colliery, P. Section. Onset, 18/9/30; treated in County Hospital, Motherwell; blood and urine negative for spirochaetes on 30/9/30, 27/10/30, 3/11/30.

*Symptoms.*—Headache, pains in limbs, nausea, jaundice on sixth day, epistaxis and subcutaneous petechiae, great prostration and slow convalescence.

In addition to those ten cases, the history of the following illness is most suspicious:—

- (11) A.P., aged 45.—Employed in the P. Section of D. Colliery. Sickened on 20/2/30, with shivering, headache, abdominal pain, sickness, pain in left back, cough, and spit. Admitted to the County Hospital, Motherwell, on 22/2/30 as a case of influenzal pneumonia. Moderately ill, dirty tongue, skin clear; lungs, no dulness, much râle; abdomen full, constipation; urine clear; temperature, 101·2°F. On 24/2/30 the temperature was normal; on 25/2/30, temperature normal, patient comfortable, suspicion of jaundice; passed frequent loose stools containing fresh blood and became collapsed; died 27/2/30.



*Post Mortem*.—Both lungs livery and full of fluid like influenzal pneumonia; heart large and flabby; liver large and pale; spleen large and soft.

*Pathologist's Report*.—Bile, no growth; liver, degenerative changes; spleen, diffuse hæmorrhagic condition; bowel, swelling and congestion.

The following history suggests that isolated cases may have been occurring over a considerable period of time:—

W.C., aged 50.—Employed as a machineman in the P. Section of D. Colliery; sickened on 1st January, 1928, with shivering, severe headache, pains in the legs, and constipation. Jaundice was recognised about 14 days later and he was sharply ill for several weeks. Convalescence was prolonged, and he was unable to work for four months.

*Conditions at D. Colliery*.—About 600 men are employed at the Colliery, and 150 work in the P. Section. The section has an "ingoing eye" or sloping approach, and is readily infested with rats coming from the surface by this route. The presence of rats is further favoured by the wet condition of these workings, and they are hardly ever seen in other sections which, with one exception, are dry. A certain concentration is common in or about the lyes where horses are fed at the middle of their shifts, and rodents are attracted by spilt grain. The wet and rat-infested conditions were referred to by all the patients, and fully recognised by the Colliery Manager.

*Bacteriological Investigation of Materials from Colliery*.—Twenty-six rats, a specimen of pit water, and a sample of mud were examined by the County Bacteriologist, but all with negative result.

In addition, 127 specimens of urine were obtained from men employed in the affected section, and examined for spirochætes with a view to the detection of a carrier or "missed" case, but in no instance was a positive result obtained.

Specimens of roof slime were requested, but were not obtained.

It was not possible to carry out further investigations owing to the intervention of the coal dispute, and the subsequent closing down of P. Section of the Colliery.

*Precautionary Measures Adopted*.—With the assistance of the local practitioners, enquiry was made into all suspicious illnesses that

had occurred recently in their practices, and it is believed that all the cases were identified. Isolation and disinfection were carried out in all new cases, and disinfection of urine and excreta was advised for those "missed" cases which were still within the period of probable infectivity.

The designated officer under the Rats and Mice Order was advised of the outbreak, and asked to consult with the Colliery Manager in devising methods of rat destruction. The measures adopted included advice to workmen on the disposal of waste scraps of food, alteration of the midshift feed of horses from grain to chopped hay, and the destruction of rats by slaughtering, trapping, and poisoning. On 29/5/30 the Manager reported the section to be practically rat-free. Chloride of lime was applied to pools of water and muddy roads, and was used freely in and near the lyes. He estimated that by that time, in addition to the 26 rats captured for purposes of bacteriological examination, 130 had been killed by employees and 150 had been destroyed by means of poison.

It is to be noted that this particular section of the Colliery in question has now been closed down owing to the cessation of orders for the quality of coal produced.

*Nature of the Outbreak.*—Specimens from 9 patients were examined for spirochaetes, and positive results obtained in five instances. In one of the negative cases (1. J.A.) the material for examination was taken on the tenth day of illness—too late for blood infection to be detected and too early for the appearance of spirochaetes in the urine. In another negative case (4 A.P.) the results were obtained from specimens taken on the thirty-eighth and forty-eighth day of illness. In two cases specimens of urine were not examined; in one instance because of the period of time that had elapsed since the onset of illness; in the other case the illness was so short and fatal, and infective jaundice was not suspected. Although the diagnosis could not be confirmed on clinical and bacteriological grounds, there was presumptive evidence that this man suffered from spirochætal jaundice.

All the persons affected worked at the same Colliery, were employed in the same section, and worked about the roads. They were all in the habit of taking their mid-shift "piece" at or near the lyes. Other sections of the Colliery were not affected, nor were workers at the "face" in the same section. The incidence accords with conditions

favouring infection by leptospira ictero-hæmorrhagiæ, and, although complete proof was not forthcoming from examination of the materials obtained in the section, the *prima facie* evidence is almost conclusive.

The clinical features of the illnesses were compatible with a diagnosis of spirochætal jaundice. Accepting No. 11 as a case of infective jaundice, the extremes were represented by this illness and that of No. 7; in the one fulminating infection terminated in death on the seventh day, while in the other a short illness was followed by jaundice so slight that it would almost certainly have been overlooked in ordinary domestic surroundings. Jaundice, nervous symptoms, severe prostration, and slow convalescence characterised the other illnesses; hæmorrhages occurred in four instances.

### Pneumonia.

1,177 case of pneumonia were brought to the notice of the Department, 1,114 cases being notified, 63 discovered from the Registrars' returns of deaths.

411 cases were removed to hospital.

*Mortality.*—The deaths due to pneumonia numbered\* 262, giving a fatality-rate of 22·3 per cent., and a death-rate of 1·09 per 1,000 of the population. The following table shows the annual number of deaths and the death-rate per 1,000 since 1922 :—

	Year—1922	1923	1924	1925	1926	1927	1928	1929	1930
Deaths,	- 301	195	319	220	206	243	205	285	262
Death-rate,	1·33	0·83	1·34	0·92	0·87	1·03	0·86	1·19	1·09

The distribution of cases and deaths throughout the year is shown below :—

Month—	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cases,	- 145	156	146	104	79	66	48	43	44	52	82	212	1,177
Deaths,	24	31	44	36	16	18	11	15	6	12	14	35	262

The age-distribution of cases and deaths, together with the fatality-rate in each group, are given in the following table :—

		All ages.										65 and over.
Cases	Primary.	-	-	1,095	176	313	221	117	115	92	61	
	(Influenzal,	-	-	82	9	18	9	13	17	11	5	
Total,		-	-	1,177	185	331	230	130	132	103	66	
Deaths,		-	-	262	64	54	9	10	36	48	41	
Fatality-rate,		-	-	22·3	34·6	16·3	3·9	7·7	27·2	46·6	62·1	

Of the 262 deaths from pneumonia, 45 had taken place before notification was received, 63 occurred in cases which were not notified at all, 14 were secondary pneumonia, and of the remaining 140 the following tabular statement shows the day of illness on which notification was obtained :—

Day of Illness,	1	2	3	4	5	6	7	8	9	10	11	12	Over 12	Not stated.	Total.
Fatal Cases Notified,	5	15	16	23	18	17	11	7	1	5	2	1	12	7	140

Information with reference to the day of illness on which each case was notified was recorded in 1,090 cases, as follows :—

Day of Illness,	1	2	3	4	5	6	7	8	9	10	11	12	Over 12	Died before Over Notifica- tion.
Cases Notified,	34	84	118	190	149	126	108	53	46	37	18	14	68	45

\*This figure does not include 22 deaths from Influenzal Pneumonia, such deaths, in accordance with the instructions of the Registrar-General, being included in the Influenza Group.

### Acute Anterior Poliomyelitis.

4 cases were notified, and 1 case admitted to the County Hospital, Motherwell, as cerebro-spinal fever proved to be suffering from acute anterior poliomyelitis.

### Encephalitis Lethargica.

11 new cases were notified during the year. In 4 of these, death had occurred prior to the receipt of the notification. 4 cases were admitted to the County Hospital, Motherwell, and 1 to Stobhill Hospital, Glasgow. In addition, 13 cases notified prior to 1930 were admitted to institutions, as follows :—Stobhill Hospital, Glasgow, 1; and Omoa House, Cleland 12. 8 deaths were recorded during the year. With regard to the 4 cases admitted to the County Hospital, Motherwell, the diagnosis was revised in each case, as follows :—Cerebral softening, 1; tuberculous meningitis, 1; intracranial tumour, 1; cerebral tumour, 1. At the end of the year 61 cases were on record, of which 21 were receiving institutional treatment.

### Diarrhoeal Diseases.

The annual number of deaths and the death-rates per 1,000 of the population for each of the years 1925-1930 were :—

	1925	1926	1927	1928	1929	1930
Deaths, - - -	53	43	43	54	38	37
Death-rate per 1,000, -	0.22	0.18	0.18	0.22	0.16	0.15

All the deaths were of children under 2 years of age, 28 being of infants under 1 year and 9 of children from 1 to 2 years, a decrease of 2 and an increase of 1 respectively, compared with the corresponding figures for 1929.

### Measles.

The deaths from measles numbered 51, a considerable increase compared with the previous year, and slightly over the annual average for the quinquennium 1926-1930.

The annual number of deaths and the death-rates per 1,000 of the population for each of the years 1925-1930 were:—

	1925	1926	1927	1928	1929	1930
Deaths, - - -	13	71	19	83	4	51
Death-rate per 1,000,	0·05	0·29	0·08	0·34	0·01	0·21

### Whooping-Cough.

The number of deaths recorded during the year 1930 was 32, the lowest figure recorded since 1926.

The annual number of deaths and the death-rates per 1,000 of the population for each of the years 1925-1930 were:—

	1925	1926	1927	1928	1929	1930
Deaths, - - -	131	25	33	85	101	32
Death-rate per 1,000,	0·55	0·10	0·14	0·35	0·42	0·13

37 per cent. of the deaths from measles and whooping-cough were of infants under 1 year of age, and 95 per cent. were of children under 5 years.

### Ringworm.

44 cases of ringworm were brought under the notice of the Department, and 3 were treated at the County Hospital, Motherwell.

### Scabies.

During the year 161 cases were reported. 21 cases were treated in the County Hospital, Motherwell.



### Venereal Diseases.

The County scheme for the recognition and treatment of these diseases embraces the Middle Ward District, and the following statistical statement shows the numbers of fresh cases dealt with at the various outdoor clinics. Information with regard to in-patient treatment will be found in the report for the County Hospital, Motherwell:—

Centre.	Syphilis.		Fresh Cases Gonorrhœa.		Others.		Total attendances of all cases.	
	M.	F.	M.	F.	M.	F.	M.	F.
County Hospital, Motherwell, -	28	17	62	16	33	9	2,002	443
Coathill, - -	4	—	5	—	3	—	210	36
Wishaw, - -	5	2	7	1	6	—	244	23
Hamilton, - -	3	3	6	—	2	1	517	45
Total, -	40	22	80	17	44	10	2,973	547

### School Closure.

It was not found necessary to recommend the closure of any school or department during the year.

### Anthrax.

Under the Diseases of Animals Act, 1894, 3 outbreaks of anthrax were reported by the Inspector under the Anthrax Order. The outbreaks were distributed as follows:— East Kilbride, 1; Dalserf, 1; Shotts, 1.

### Institutions.

During the year 5,729 Middle Ward patients, and 496 patients from areas outwith the Middle Ward, were admitted to the various institutions, making a total of 6,225 admissions. The respective institutions are dealt with separately in another section of this Report.

The following statistical tables, F (a) and (b), give detailed information with regard to the admissions:—

TABLE F.—HOSPITALS AND SANATORIA. (a) PATIENTS ADMITTED FROM MIDDLE WARD DISTRICT.  
(Admissions as notified.)

HOSPITALS AND SANATORIA.	Cases in Hospital at the beginning of year.	Admitted during year from the Middle Ward.	Discharged	Died.	Cases remaining in Hospital at the close of year.	Diphtheria.	Scarlet Fever.	Typhoid Fever.	Cerebro-Spinal Fever.	Puerperal Fever.	Puerperal Pyrexia.	Erysipelas.	Pneumonia.	Influenza.	Pulmonary Tuberculosis.	Tuberculosis. All other forms.	Venereal Diseases.	Ophthalmia Neonatorum.	Encephalitis Lethargica.	Measles.	Whooping-cough.	Continued Fever.	Chickenpox.	Other Diseases.	Mothers.	Children.	Total.
Motherwell,	- 151	2,516	2,323	196	148	673	840	105	6	65	33	62	349	1	41	33	64	13	5	10	7	—	1	208	—	—	2,516
Lightburn,	- 24	216	185	15	40	42	100	1	—	1	1	4	58	—	1	—	—	—	—	6	—	—	—	—	—	—	216
Shotts, -	44	113	84	24	49	—	—	—	—	—	—	—	—	—	95	18	—	—	—	—	—	—	—	—	—	—	113
Stonehouse,	- 69	85	76	9	69	—	—	—	—	—	—	—	—	—	—	68	—	—	—	—	—	—	—	17	—	—	85
Longriggend,-	45	125	118	16	36	—	—	—	—	—	—	—	—	—	77	48	—	—	—	—	—	—	—	—	—	—	125
Hairmyres, -	181	208	208	2	179	—	—	—	—	—	—	—	—	—	128	80	—	—	—	—	—	—	—	—	—	—	208
Dalserf,-	15	10	13	—	12	—	—	—	—	—	—	—	—	—	—	10	—	—	—	—	—	—	—	—	—	—	10
Bellsbill,	25	1,578	1,520	41	42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,012	566	1,578
Calderbank House,	- 37	674	646	29	36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	280	394	674
*Blantyre,	- 13	70	83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	44	26	70
†Lanark,	- —	134	125	—	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	74	60	134
TOTALS,	- 604	5,729	5,381	332	620	715	940	106	6	66	34	66	407	1	342	257	64	13	5	16	7	—	1	227	1,410	1,046	5,729

\* Blantyre Hospital was closed in July, 1930.

† Lanark Hospital taken over by County Council in July, 1930.

TABLE F.—HOSPITALS AND SANATORIA. (b) PATIENTS ADMITTED FROM AREAS OUTWITH THE MIDDLE WARD DISTRICT.

AUTHORITY.	COUNTY HOSPITAL, MOTHERWELL.				COUNTY SANATORIA.					BELLSHILL HOSPITAL.		CALDERBANK HOUSE.		LANARK HOSPITAL.					
	Diphtheria.	Scarlet Fever.	Enteric Fever.	Puerperal Fever and Pyrexia.	Pneumonia.	Tuberculosis.	Veneral Diseases.	Other Conditions.	Shots.	Stonehouse.	Uppertown.	Hairmyres.	Dalsert.	Mothers.	Children.	Mothers.	Children.		
Upper Ward, -	9	1	-	3	-	1	2	7	-	1	-	3	-	70	46	13	6	4	4
Lower Ward, -	1	-	-	4	1	-	2	3	2	2	6	6	-	39	66	15	13	2	1
Airdrie, -	-	-	1	3	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-
Coatbridge, -	1	-	-	12	1	-	6	-	-	-	-	-	-	-	-	-	-	-	-
Hamilton, -	9	-	-	1	7	-	5	2	-	1	-	14	-	2	1	-	-	-	-
Motherwell and Wishaw, -	-	-	-	-	-	-	12	-	-	-	-	3	-	2	1	-	-	-	-
Rutherglen, -	-	-	-	-	-	-	1	1	-	-	-	3	-	-	-	-	-	-	-
Clydebank, -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
East Lothian, -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ayrshire, -	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-
Berwick, -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dunbartonshire, -	-	-	-	7	-	-	1	2	-	-	-	1	-	-	-	-	-	-	-
Glasgow, -	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-
Greenock, -	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Lanark, -	3	-	-	1	-	-	2	2	-	-	-	-	-	14	11	4	4	-	1
Renfrewshire, -	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-
Stirling, -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Military, -	1	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
Totals, -	24	1	1	31	9	1	32	21	2	4	6	45	-	127	125	32	23	6	6

## TUBERCULOSIS.

## MORTALITY.

The deaths from all forms of tuberculosis numbered 195, viz. :—  
Pulmonary, 130; meningeal, 30; abdominal, 11; and other forms, 24.  
In the following table the deaths are classified in age periods :—

Ages,	-1	1-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.
Pulmonary,	- 1	3	4	6	30	29	21	33	3	130
Meningeal,	- 6	16	5	1	1	1	—	—	—	30
Abdominal,	- —	2	3	1	3	1	—	—	1	11
Other forms,	- —	3	2	1	9	4	1	4	—	24
Total,	- 7	24	14	9	43	35	22	37	4	195

*Death-rates.* — The death-rates per 10,000 of the population were :—

	Pulmonary.	Meningeal.	Abdominal.	Other Forms.
1926, - -	5.2	1.3	1.4	1.0
1927, - -	4.7	1.2	1.2	0.6
1928, - -	4.8	1.5	1.0	0.7
1929, - -	5.2	0.9	0.8	0.9
1930, - -	5.4	1.2	0.4	1.0

The average quinquennial death-rates per 10,000 of the population since 1891-1930, and for the year 1930, are shown in the following table :—

Years.	Pulmonary.	Non-Pulmonary.	All Forms.
1891-1895, - -	13.57	9.88	23.45
1896-1900, - -	11.44	9.11	20.55
1901-1905, - -	10.00	8.31	18.31
1906-1910, - -	8.83	8.56	17.39
1911-1915, - -	8.16	6.53	14.69
1916-1920, - -	7.57	5.28	12.85
1921-1925, - -	5.93	4.83	10.76
1926-1930, - -	5.12	3.13	8.25
1930, - -	5.43	2.71	8.14

RETURN OF NUMBER OF PERSONS WHO DIED FROM TUBERCULOSIS WITH PARTICULARS AS TO PERIOD ELAPSING BETWEEN NOTIFICATION AND DEATH AND BETWEEN DISCHARGE FROM AN INSTITUTION AND DEATH.

	Pulmonary.		Non-Pulmonary	
	M.	F.	M.	F.
Number of persons who died from Tuberculosis, - - - - -	63	67	29	36
Of whom—				
Not notified or notified only at or after death, - - - - -	15	10	10	14
Notified less than 1 month before death,	8	10	10	12
" from 1-3 months " " "	10	10	1	2
" " 3-6 " " "	7	7	1	1
" " 6-12 " " "	5	11	—	1
" " 1-2 years " " "	6	10	—	3
" over 2 " " "	12	9	7	3
Number who died within 28 days after discharge from an Institution, - - -	2	2	1	2
Number who died more than 28 days after discharge from an Institution, - - -	14	18	3	5

*Deaths.*—146 notified pulmonary, and 78 notified non-pulmonary cases died; of these, 90 and 57 respectively were of cases notified during the year.

The number who died with the certified cause of tuberculosis was 130 for pulmonary and 65 for non-pulmonary.

The mortality for pulmonary forms is given in the following table, which shows the average annual number of deaths in each Registration District since 1916:—

**PULMONARY TUBERCULOSIS IN EACH REGISTRATION DISTRICT OF THE  
MIDDLE WARD.—AVERAGE ANNUAL NUMBER OF DEATHS FOR  
QUINQUENNIAL PERIODS 1916-1930, AND FOR THE YEAR 1930.**

Registration District.	Population. Census 1921.	1916-20.	1921-25.	1926-30	1930.
Avondale, - -	5,902	3·6	2·8	3·6	6
East Kilbride, - -	4,787	4·8	3·6	3·2	3
Glasford, - -	4,131	·6	1	1	—
Stonehouse, - -	4,204	2·4	2	1·6	3
Blantyre, - -	18,154	16·2	17·4	11·8	7
Bothwell, - -	19,904	15·2	14·2	12·8	13
Bellshill, - -	20,934	19	16·2	12	11
Holytown, - -	18,579	14·2	8·6	12·6	15
Cambuslang, - -	26,130	25	16·8	14·4	12
Cambusnethan, -	12,243	8	10·4	8	14
Calderhead, - -	4,007	4	2·6	2·4	2
Dalserf, - - -	4,491	2·2	2·8	1·4	2
Larkhall, - - -	14,974	7·8	6	4·2	8
Dalziel, - - -	2,023	·8	1	1·4	1
Hamilton, - -	7,921	3·6	3·6	4·8	9
New Monkland, -	13,773	7·8	5·6	6·2	7
Old Monkland—					
East, - -	2,435	1·8	1·4	·6	—
Coatbridge, -	2,910	1·8	1·2	·8	—
West, - -	13,415	8·2	7	10·8	12
Shotts—					
East, - -	4,667	3	3·2	1·2	1
Middle, - -	3,605	1	1·2	1·6	2
Calderhead, -	6,347	5·4	4·2	2·6	1
West, - -	4,660	3	3·4	2·4	1
North, - -	1,303	1·6	·4	·6	—
TOTAL, -	218,817	161	136·6	122	130



## MORBIDITY.

*Notification.*—There were on record at the beginning of the year 1,132 cases of pulmonary and 1,321 cases of non-pulmonary forms of the disease, and during the year 350 new cases of the former type and 338 new cases of the latter were brought to notice, giving a total of 1,482 and 1,659 cases respectively. The following tabular statement shows the number of new cases notified by medical practitioners, and those not so notified, the latter being cases which came to the knowledge of the department through dispensaries or from the Registrar's death returns :—

	Pulmonary.	Non-Pulmonary.
New cases notified, - - - -	208	227
„ „ not notified, - - - -	142	111
	<hr/> 350	<hr/> 338
	<hr/> <hr/>	<hr/> <hr/>

The above figures show a slight increase in the number of new cases.

During the year 382 patients were sent to out-patient clinics by their own medical attendants, 353 were asked to attend by members of our outdoor staff, 25 were sent by the School Medical Department, 234 attended of their own accord—a total of 994.

Of the total number of 1,482 pulmonary and 1,659 non-pulmonary cases dealt with throughout the year, the following table shows the changes which took place :—

	Pulmonary.	Non-pulmonary.
Cases in District on 1/1/30, ... ..	1,132	1,321
New Cases, ... ..	350	338
Total on Register, ... ..	1,482	1,659
Cases removed from Register—		
Died, ... ..	146	78
Disease arrested, ... ..	76	129
Diagnosis revised, ... ..	36	69
Left District, ... ..	100	90
	<hr/> 358	<hr/> 366
	<hr/> <hr/>	<hr/> <hr/>
Cases in District on 31/12/30, ... ..	1,124	1,293
	<hr/> <hr/>	<hr/> <hr/>

RETURN OF NUMBER OF PERSONS RESIDENT IN THE AREA AT 31ST DECEMBER,  
1930, WHO WERE KNOWN TO BE SUFFERING FROM TUBERCULOSIS.

(Only cases in which a Diagnosis of Tuberculosis has been confirmed are included.)

		NUMBER OF CASES								Total
		Age Groups								
		5 and under	10 and under	15 and under	25 and under	35 and under	45 and under	65 and upwards		
		5	10	15	25	35	45	65		
PULMONARY.*										
A. Sputum not examined, ...	Males,	4	56	75	50	30	20	17	2	254
	Females,	12	60	53	37	36	16	19	2	235
B. Sputum examined—										
1. Tubercle Bacilli found, ...	Males,	—	2	2	46	60	25	34	—	169
	Females,	—	1	4	57	21	15	15	—	113
2. Tubercle Bacilli never found, ...	Males,	1	6	11	45	49	45	57	5	219
	Females,	2	11	26	32	18	28	16	1	134
Pulmonary Total, ...		19	136	171	267	214	149	158	10	1,124

**NON-PULMONARY.†**

1. Abdominal, ...	Males,	24	61	39	37	3	1	—	—	165
	Females,	18	52	42	23	6	3	2	1	147
2. Spine, ...	Males,	9	8	7	13	4	1	3	—	45
	Females,	8	5	6	6	4	1	3	—	33
3. Bones and Joints (exclusive of Spine), ...	Males,	15	33	36	34	10	8	13	2	151
	Females,	9	22	14	26	7	8	7	—	93
4. Superficial Glands, ...	Males,	17	76	65	42	26	5	7	1	239
	Females,	12	78	67	99	26	11	9	1	303
5. Lupus, ...	Males,	—	2	—	6	3	—	—	—	11
	Females,	—	3	3	5	2	3	1	—	17
6. Other parts or Organs, ...	Males,	1	11	3	—	8	6	3	—	32
	Females,	6	16	14	3	7	6	5	—	57
Non-pulmonary Total, ...		119	367	296	294	106	53	53	5	1,293

**PULMONARY AND NON-**

**PULMONARY TOTAL, ...** 138 503 467 561 320 202 211 15 2,417

\* Persons suffering from both pulmonary and non-pulmonary tuberculosis included under "Pulmonary" only.

† Persons suffering from multiple lesions classified according to the site of the principal lesion. No case included more than once in the return.

*Note.*—A patient is retained on the Register in the case of pulmonary tuberculosis for at least five years, and in the case of non-pulmonary for at least three years after complete freedom from symptoms and absence of signs of tuberculosis, except such as are compatible with a healed lesion or lesions.

*Types of Non-Pulmonary Cases.*—The 338 new cases are classified in the following statement according to the localisation of the principal lesion present at the time of notification :—

Cervical glands, - - -	139	†Special organs, - - -	9
Abdomen, - - -	69	Skin and sub-cutaneous	
*Bones and joints, - - -	65	tissue, - - -	2
Meninges, - - -	39	Lupus, - - -	4
General, - - -	11		
			<hr/> 338 <hr/>

*Distribution throughout District.*—The parishes of residence are given in Table E.

*Age, Sex, and Diagnosis.*—The following table shows the new cases classified according to age, sex, and diagnosis. The diagnosis may not have been verified for a variety of reasons—*e.g.*, the patient may have been under observation for an insufficient period, may have refused examination, or the disease may have been found to be non-tuberculous :—

*Pulmonary Tuberculosis.*—350 cases notified.

Number of cases notified during year in which diagnosis of Tuberculosis has been confirmed.

	0-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.	Under 15	15 and over.
Males, -	5	25	23	31	36	23	26	4	173	9	99
Females,	10	28	29	43	36	12	17	2	177	11	92

*Non-Pulmonary Tuberculosis.*—338 cases notified.

Number of cases notified during year in which diagnosis of Tuberculosis has been confirmed.

	0-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.	Under 15	15 and over.
Males, -	62	38	23	21	5	5	10	1	165	74	34
Females,	49	49	19	30	11	8	6	1	173	80	44

\* *Bones and Joints—Detailed.*—Spine, 17; Hip Joint, 10; Knee Joint, 9; Ankle Joint, 6; Elbow Joint, 6; Tibia, 4; Dactylitis, 8; Thigh, 1; Metatarsus, 1; Wrist, 3.

† Eyes, 6; Urinary tract, 1; Palmar ganglion, 1; Breast, 1.

TABLE SHOWING THE ESTABLISHED DIAGNOSIS OF NOTIFIED CASES  
DURING THE YEAR.

		Per Pulmonary.	Non- Pulmonary.	Per Cent.
Diagnosis of Tuberculosis confirmed,	- 211	60	232	68
Diagnosis altered—Tuberculised, but retained on list for further obser- vation, - - - - -	74	21	17	5
Altered Diagnosis, - - - - -	56	16	81	23
Left District—Diagnosis not confirmed,	9	2	8	2

*Pulmonary Tuberculosis—Confirmation.*—Statement showing the confirmatory signs in the 211 cases where the diagnosis of pulmonary tuberculosis was established. 49 of the cases died and the death certificate is accepted as disease established.

Spit positive, ... ..	97
Spit negative with—	
X-ray positive and other confirmatory signs, ... ..	43
Tuberculous pleurisy, ... ..	8
Clinical examination positive, ... ..	14
Death Certificates, ... ..	49

#### SPIT EXAMINATIONS.

Total cases notified, 350.

Cases who had spit examined, ...	183	52 per cent.
Positive result, ... ..	97	53 „
Negative result, ... ..	86	47 „
No spit examination, ... ..	167	47 „
Cases who had no spit, ... ..	100	59 „
Cases who died before or soon after notification, ... ..	47	28 „
Specimen refused, ... ..	5	3 „
Spit not examined, ... ..	6	3 „
Cases who left district, ... ..	9	5 „

## X-RAY EXAMINATIONS.

This type of examination has become part of the routine investigation of all cases of doubtful tuberculosis, and the extent to which the facilities at the County Hospital, Motherwell, are used by the various dispensaries and by Shotts and Longriggend Sanatoria is shown in the following statement:—

Year.	Examinations.	Year	Examinations.
1921	37	1926	230
1922	108	1927	439
1923	143	1928	497
1924	143	1929	490
1925	174	1930	629

## HOUSING CONDITIONS OF CONFIRMED CASES OF PULMONARY TUBERCULOSIS, 1930.

					1 Apt.	2 Apts.	3 Apts.	4 Apts.	Over 4 Apts.
Total Cases,	-	-	-	-	30	75	58	18	9
Number who received In-patient treatment,	-	-	-	-	16	49	34	9	2
Bed to Self,	-	-	-	-	10	22	13	2	—
Room to Self,	-	-	-	-	—	15	29	13	9
Total number of Contacts,	-	-	-	-	116	368	265	77	27
Number of Contacts under 5 years of age,	-	-	-	-	25	46	32	7	—
Number who died,	-	-	-	-	14	26	27	8	7

The number of cases confirmed for pulmonary tuberculosis was 211; the above table only shows 190, the remaining cases being 17 institutional and 4 others, the 4 being cases who died, and family removing from the area before information could be obtained.

*Supervision of Contacts.*—During the year a list of 387 scholars living in direct contact with cases of pulmonary tuberculosis (sputum positive) were submitted to the School Medical Inspection Department. The list showed the names and addresses, the school attended, and the relationship of the contact to the case in each instance.

*Co-operation with Medical Practitioners.*—When a case is discharged from Sanatorium, the following letter is sent to the patient's medical attendant. The institutional diagnosis is given, and where this is other than tuberculosis, clearly established by special examinations and tests, the medical attendant is advised that patient's name has been removed from the tuberculosis register—

### TUBERCULOSIS SCHEME.

I have to inform you that the undernoted case, who I understand was under your care was discharged from Sanatorium on

.....

Name,..... Age,.....

Address, .....

Notified, .....

Present Condition, .....

X-ray Examination, .....

Sputum Examination, .....

Tuberculin Reactions, .....

Remarks, .....

.....

.....

*Discharged Tuberculous Soldiers.*—Among the cases notified for the first time during 1930 were 14 discharged soldiers, 11 pulmonary and 3 non-pulmonary. The relationship of the disease to military service according to the Ministry of Pensions was—accepted, 1; and undecided, 13.

Institutional treatment in sanatorium or farm colony was given to 8 cases; 1 case refused in-patient treatment, 1 died, 1 left district, 2 were unsuitable for treatment, and 1 was waiting treatment at end of the year.

The total number of ex-service men dealt with throughout the year as suffering from tuberculosis was 76. In addition to domiciliary visits made to those cases by the Tuberculosis Officers and attendances made by the men at the dispensaries, 426 home visits were made by Nurse-inspectors.

*Institutional Treatment.*—The work at the various institutions dealing with cases of tuberculosis is described by the respective Physician-Superintendents in the institutional reports.

**Refractories Industries (Silicosis) Scheme, 1925.**—Under “The Refractories Industries (Silicosis) Scheme, 1925,” as from 1st May,



1925, only initial examinations are carried out by the Tuberculosis Officers of the County of Lanark, subsequent examination being done by the Medical Board set up under the scheme.

One initial examination was carried out under the above scheme from Struther Ganister Mine, and the worker was found to conform to physique required.

**The Sandstone Industry (Silicosis) Scheme, 1929.**—Initial examination of workers under the above scheme is carried out by the Tuberculosis Officers of the County of Lanark.

No such examinations were made during 1930.

### Treatment.

The new cases notified were dealt with as follows:—

	Pulmonary.	Non-Pulmonary.
Admitted to Sanatorium, - - -	179	142
Refused to go to Sanatorium, - - -	25	34
Died before or soon after notification, -	63	45
Inmates of Asylums, &c., - - -	3	—
Visitors or left district, - - -	20	7
Unsuitable for institutional treatment, -	16	21
Waiting treatment towards end of year,	14	17
Out-patient treatment at dispensaries and other institutions, - - -	30	72
	<u>350</u>	<u>338</u>

Where a patient receives both sanatorium and out-patient treatment during the year, the sanatorium treatment is shown in the foregoing table in preference to the out-patient treatment.

*Institutional Treatment.*—The cases admitted and re-admitted to tuberculosis institutions are shown in the following table. No patient was sent to any institution outwith the County:—

		Actual Accommo- dation.	Pulmonary. First Admissions.	Re-admis- sions.	Non-pulmonary. First Admissions.	Re-admis- sions.
Sanatoria,	Shotts,	54	62	33	17	1
	Uppertown,	55	49	38	40	8
Orthopædic,	*Stonehouse,	82	—	—	45	23
	Dalserf,	16	—	—	3	7
Colony,	Hairmyres,	250	75	53	39	41
(Treatment and training),						
Hospital,	Motherwell,	20	6	35	23	10
(Operative treatment and Artificial Pneumothorax),						
—	Lighburn,	—	1	—	—	—
—	Roadmeetings,	—	5	—	—	1

\* Total admissions 85—17 being Orthopædic cases (non-tuberculous).

*Domiciliary Treatment.*—Cases suitable for treatment at home, or who could not for some reason receive institutional treatment, were kept under observation by the Tuberculosis Officers and Nurse Inspectors, the latter of whom paid 17,961 visits during the course of the year.

During the year 142 cases received additional nourishment in the form of milk, eggs, butcher meat, and butter, at a total estimated cost of £629. In addition, supplies of malt and cod-liver oil were provided for these and other cases.

20 patients were supplied with a single bedstead, mattress and cover, pillows and blankets. These articles are supplied to patients where proper nursing and care can be carried out at home, and where the patients or relatives are unable to afford the necessary articles. All cases are under strict supervision by the Tuberculosis Officers and Nurses, who ensure that patient has “bed to self.” At the end of the year 23 cases had bedsteads and bedding in use. One air bed and 3 air cushions have also been supplied, and are in use by patients.

*Out-Patient Clinics.*—Table showing the work done at the clinics:—

	New Cases.	Re-attendances.
COUNTY ORTHOPÆDIC HOSPITAL,		
STONEHOUSE—		
Minor operations, - - -	260	19
X-ray examinations, - - -	283	60
Consultations, - - -	532	255
Artificial sunlight treatment, -	55	4,459
Electric treatment, - - -	16	182
Miscellaneous cases, - - -	55	458
COUNTY SANATORIUM, SHOTTS—		
Artificial sunlight treatment, -	16	912
HEALTH INSTITUTE, CAMBUSLANG—		
Artificial sunlight treatment, -	30	2,553
HEALTH INSTITUTE, SHOTTS—		
Dressings, - - - -	36	471
*Artificial sunlight treatment, -	12	246
HEALTH INSTITUTE, BLANTYRE—		
Dressings, - - - -	19	67
Artificial sunlight treatment, -	53	1,554

\* Artificial Sunlight Clinic transferred from Sanatorium to Health Institute, September, 1930.

*Dispensary Treatment.*—Five dispensaries—situated at Bellshill, Blantyre, Cambuslang, Larkhall, and Shotts—were in use, and the following table shows the record of the attendances:—

	New Cases.	Re-attendances.
Bellshill, . . . . .	294	3,117
Blantyre, . . . . .	79	2,157
Cambuslang, . . . . .	220	4,748
Larkhall, . . . . .	131	814
Shotts, . . . . .	270	2,066
	<hr/> 994	<hr/> 12,902

TABLE SHOWING CASES NOT NOTIFIED SENT TO THE CLINICS.

By whom Sent	Bellshill	Blantyre	Cambuslang	Larkhall	Shotts	Total	Total
Sent by Doctors, - . . .	92	32	60	100	98	382	994
Sent by Public Health Staff,	124	37	63	15	114	383	
Sent by School Medical Department, - . . .	4	4	2	10	5	25	
Came of own accord, - . .	74	6	95	6	53	234	

*Dental Treatment.*—Table showing the number of notified cases who were recommended for treatment at Out-patient Clinics:—

Bellshill Dispensary, - . .	-	-	-
Blantyre Health Institute, .	-	-	4
Cambuslang do., . . . . .	-	-	13
Larkhall Dispensary, - . .	-	-	5
Shotts Health Institute, - .	-	-	8

*Ear, Nose, and Throat Clinic.*—At the 23 sessions held during the year, the first visits paid numbered 43, and the re-visits, 20. 30 operations were recommended, of which 27 were performed, as follows:—Tonsils and adenoids, 24; antral puncture, 2; transillumination, 1.

The difference in the number of operations recommended and performed is made up as follows:—Awaiting operation, 1; unfit for operation, 1; removed from district, 1.

Attendances at the Clinic were recommended from the following sources:—Bellshill Dispensary, 6; Blantyre Dispensary, 1; Cambuslang Dispensary, 2; Larkhall Dispensary, 4; Shotts Dispensary, 25; Shotts Sanatorium, 4; Longriggend Sanatorium, 1.

## COUNTY SANATORIUM, SHOTTS.

*Physician-Superintendent—*

D. R. HAMILTON, M.A., M.B., Ch.B., D.P.H.

*Visiting Physician—*JOHN MACMILLAN, M.B., Ch.B.

*Matron—*MISS KEIR.

### Administration.

**BUILDINGS AND GROUNDS.**—Since the purchase of the remaining seams of coal under the old feu in 1928 there has been no mineral subsidence nor structural damage. The ground is now apparently stable, and advantage has been taken of this in relaying certain main and field drains which had lost their original levels and for many years have interfered with free drainage.

No building extensions have been undertaken during the year.

### SUPPLY OF ELECTRICITY AND INSTALLATION OF MODERN ELECTRIC COOKING EQUIPMENT.

At a meeting of the Sub-Committee of Management, held in the Sanatorium on 24/1/30, it was decided that, in view of the distribution of electricity in the Shotts district being taken over by the Clyde Valley Power Company, an arrangement be made to obtain the supply of current from them on terms previously agreed upon and to have the perished overhead distribution in the Institution rewired by the Company, at a cost of £50. It was further decided that modern electrical cooking equipment be installed in the kitchen by the Clyde Valley Accessories, in accordance with their offer, as follows:—

Electric Double Oven Range, ... ..	£88	0	0
Two-compartment Grill, ... ..	30	16	0
Nickel-plated Grids for same, ... ..	1	2	0
Electric Soup Boiler (10 gallons), ... ..	22	0	0
Electric Stock Pot (15 gallons), ... ..	27	10	0
Automatic Constant Feed Water Boiler, ... ..	33	0	0
Electric Hob Closet for Patients' Scullery, ... ..	35	0	0
For assembling all above in position, ... ..	19	18	0

---

£257    6    0

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The above work was carried out expeditiously and the change over became effective as from 12th June, 1930.

The alterations in the kitchen have been much appreciated by the Staff and have greatly facilitated the cooking and the preparation of special diets.

The old cable and 10 K.V.A. transformer and relative switch, which had dealt with the current supply from the Shotts Iron Company, was disposed of to the latter Company for £15.

The Out-patient Artificial Sunlight Clinic was discontinued in September. During the first half of the year the distribution of electricity throughout the Shotts district made it possible to instal an artificial sunlight lamp in the Shotts Health Institute, and the clinic is now established there. The inadequacy of the accommodation in the Sanatorium for this clinic has been mentioned in previous reports and the usefulness of this form of treatment for out-patients has, in consequence, been limited. The lamp has been retained and is now reserved for the treatment of children and non-pulmonary patients resident in the Sanatorium.

ACCOMMODATION.—Remains unchanged; 46 beds and 8 cots. The emergency bed in the side room of Pavilion II is not included in this number. Of beds, 32 are allotted for males and 14 for females.

STAFF.—The Medical Staff is non-resident and remains unchanged. *Nursing Staff.*—Matron, 2 sisters, 3 staff nurses, and 5 probationers. The temporary appointment of an additional staff nurse in charge of artificial sunlight treatment has now been terminated. During the holiday period a sixth probationer nurse is required. *Domestic Staff.*—1 cook, 1 laundress, and 8 maids. *Outdoor Staff.*—1 gardener-attendant, 1 fireman, and 1 assistant gardener-attendant. In addition 1 gardener assistant is maintained in employment on short hours and reduced wages in view of increasing senile infirmity.

#### ADMISSIONS AND DISCHARGES.

Number of patients in residence at 1/1/30,	-	-	-	45	
„ „ admitted during year,	-	-	-	115	
„ „ discharged „ „	-	-	-	85	} 109
„ „ died „ „	-	-	-	24	
„ „ in residence at 31/12/30,	-	-	-	51	

## PLACE OF RESIDENCE.

All the cases discharged during the year resided within the County of Lanark, and the place of residence according to the parish is as follows :—

Avondale, - - - - 6	Dalserf, - - - - 10
East Kilbride, - - - 4	Hamilton, - - - - 4
Blantyre, - - - - 6	New Monkland, - - - 5
Bothwell, - - - - 37	Old Monkland, - - - 7
Cambuslang, - - - - 12	Shotts, - - - - 10
Cambusnethan, - - - 7	Lesmahagow, - - - 1

## AGE AND SEX.

In the following table the patients discharged are classified according to their age group, sex, and type of disease diagnosed :—

Age Group	Sex		Pulmonary Tuberculosis	Non-Pulmonary Tuberculosis	Tuberculised	Non- Tuberculous	Totals
	M.	F.					
Pre-School, - - - 5 years, -	6	3	—	3	2	4	9
School, - - - { -10 " -	3	4	2	—	4	1	7
- - - { -15 " -	5	3	4	—	2	2	8
Adolescent, - - - { -20 " -	10	6	12	3	1	—	16
- - - { -25 " -	12	3	13	2	—	—	15
- - - { -30 " -	10	5	15	—	—	—	15
Early Maturity, - - { -35 " -	4	3	7	—	—	—	7
- - - { -40 " -	11	1	11	—	—	1	12
- - - { -45 " -	4	6	8	—	—	2	10
Late Maturity, - - 45+ " -	9	1	10	—	—	—	10
	74	35	82	8	9	10	169
	109		109				

## DURATION OF RESIDENCE.

	RESIDENCE IN DAYS		
	Maximum	Minimum	Average
Pulmonary Tuberculosis, ...	1,212	8	190
Non-Pulmonary Tuberculosis, ...	353	7	153
Tuberculised, ...	118	13	55
Non-Tuberculous, ...	426	19	129

## TRANSFERS TO OTHER INSTITUTIONS.

Hairmyres Colony, ...	23
County Hospital, Motherwell, ...	9
Calderbank Convalescent Home, ...	1
Ventnor Sanatorium, Isle of Wight, ...	1



## Pulmonary Tuberculosis.

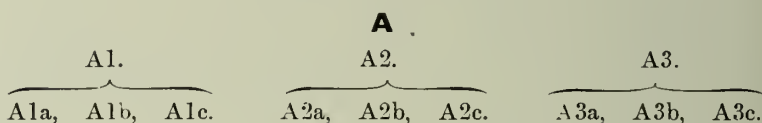
82 CASES.

Classified according to their condition on admission, 8 cases were placed in Group I of the modified Turban-Gerhardt classification, 6 in Group II, and 68 in Group III.

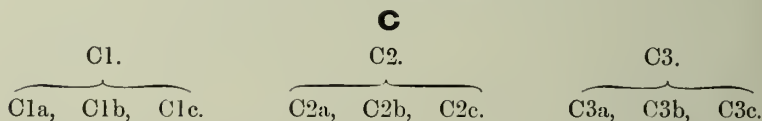
These groups have been further sub-divided according to the system of classification formulated by Professor S. Lyle Cummins, of the Welsh National School of Medicine, and published in the "British Journal of Tuberculosis," April, 1924, Vol. XVIII, No. 2. This system combines the modified Turban-Gerhardt system and Inman's practical division of cases in terms of their individual balance between infection and resistance using the temperature and pulse as an index of auto-inoculation. It answers three fundamental questions about each case as follows:—(1) Is the disease an "acute initial" or a "chronic recrudescent" stage? (2) What is the anatomical extent of the disease? (3) What is the state of balance between infection and resistance? The advantage of the method is that by a simple formula of three elements it is possible to obtain a fairly satisfactory visualisation of the state of the patient at any given time.

The scheme in diagram is as follows:—

### ACUTE INITIAL GROUP.



### CHRONIC AND RECRUDESCENT GROUP.



The figures 1, 2, and 3 represent increasing degrees of pulmonary involvement, while the letters a, b, and c indicate the constitutional balance. A case of moderately advanced disease with a history of hæmoptysis three years ago, with no fever at rest, but a rise to 101°F. on exercise, would be C2b. If the spit is positive and any serious complication exists, the case would be formulated as C2b, spit positive, laryngitis,

## CLASSIFICATION ON ADMISSION ACCORDING TO ABOVE SCHEME.

A1a,	A1b,	A1c.	A2a,	A2b,	A2c.	A3a,	A3b,	A3c.
—	—	4	1	2	1	26	—	7
C1a,	C1b,	C1c.	C2a,	C2b,	C2c.	C3a,	C3b,	C3c.
—	1	1	—	—	3	13	2	21

It will be seen from this table that the majority of cases admitted to the Sanatorium are either advanced initial or advanced chronic cases. The latter group is common in every Sanatorium, which is also a tuberculosis hospital, and includes the moribund and spit positive chronics. These are the infective sources of spread of human tuberculosis, particularly among the members of their own households, and their isolation in hospital is to be commended.

On the other hand, it is disappointing to note year after year the preponderance of "early" cases whose onset of illness is but recent, and who on their first admission to Sanatorium are found to have widespread involvement of the lungs. Treatment for them rarely brings about a true and permanent arrest. The optimum recovery is a quiescent stage in which the resultant respiratory disability is such as to render the unfortunate victim unable to participate in his usual sphere of employment, and the light work with a living wage for which they are perhaps suited and in which they may reasonably hope to maintain the narrow margin of tolerable health in their favour, is mythical. As a rule the willing workers among them who are successful in the open competition of the Labour Exchange are unable to survive the strain, and are very soon re-admitted with an exacerbation of pulmonary activity.

The ideal of directing the treatment of cases towards the goal of their re-absorption as economic units in the industrial work is futile. Their problem is a medical and economic one, and they are capable of remunerative employment only under sheltered and medically supervised conditions of the colony or settlement. What matter though these schemes are not self-supporting? Any practical and adequate solution of the urgent after care problem of employment of the tuberculous will involve an overdraft on the rates. The scheme which is conceived with complete realisation of the limitations of this type of consumptive who is able to work will be least expensive in the long run, and productive of lasting individual social and economic advantages. So long as our methods of prevention and diagnosis fail to reveal the "early" case, and the optimum result

of institutional treatment be a quiescent stage with extensive and permanent lung damage, the question of after-care will remain fundamental in the eradication of tuberculosis.

Reflections on this point prompt the question—Is it possible to diagnose tuberculosis in a stage sufficiently early to permit of effective arrest or even “cure” by sanatorium methods? The answer to this question is difficult. There are cases in one’s experience, particularly among young adults and all too frequent, where the onset of illness in a previously healthy and robust subject is associated with acute “influenzal” symptoms and explosive spread of disease throughout the lung substance. This is the formidable type of acute tuberculosis and however early the diagnosis is, the condition is already advanced.

But there are many other cases of a much more benign nature where diagnosis is possible in a stage of slight involvement of the lung substance. Here the greater burden of responsibility for the failure of early diagnosis lies not with the doctor or with the methods of diagnosis available to him, but with the patient himself. The latter knows that he is not so well as usual, he suspects the meaning of his symptoms, but deliberately conceals it and carries on with his work until his condition is no longer “early,” but one of gross disturbance following prolonged invasion. His stupidity, his ignorance is not real, only apparent. His problem is a psychological one. If he were certain that during the period of treatment his dependants would not suffer or that after sanatorium treatment he would be able to maintain himself and his family without the constant menace of economic disaster consequent upon the inevitable breakdown, then he would undergo medical examination at an earlier period in his illness. The removal of this obstacle in the recognition of the “early” case must be undertaken by the introduction of adequate facilities in the tuberculosis scheme. To secure the “early” case is the important consideration and if this aspect of the problem were realised and the defect in the tuberculosis scheme remedied, the number of “early” cases would surely increase, and the results of sanatorium treatment be more heartening.

#### GENERAL RESULTS OF TREATMENT.

*A1c Group (4 Cases).*—All four were transferred to Hairmyres in a quiescent stage. One, a youth of 17 years, had a positive spit on admission which became persistently negative prior to discharge. Another boy of 9 years received artificial pneumothorax treatment with very good results.

A girl of 14 years illustrates the value of a systematic search for incipient tuberculosis among spit positive contacts. Recently, two older sisters, still in young adulthood, had died of pulmonary tuberculosis. The remaining members of the family were examined as contacts. This girl was apparently in perfect health—her mother was definite on this score, but admitted on further questioning that she had noticed that the girl recently had been a little languid, but attributed this to “her time of life.” Ordinary examination of the chest failed to detect any abnormality, but X-ray examination revealed a recent circumscribed deposit in left infraclavicular region. The improvement in general health in this case was very definite, with some evidence of local retrogression prior to transfer.

*A2a (1 Case).*—Became afebrile without any apparent lessening of local activity, and was transferred to the County Hospital for induction of Artificial Pneumothorax.

*A2b (2 Cases).* — Both, young adult males, became afebrile, quiescent and spit negative prior to discharge, one to Hairmyres and the other home.

*A2c (1 Case).* — A boy of 11 years, transferred after 39 days' residence to Hairmyres. There were definite X-ray evidence of recent deposits in the left basal parenchyma, but apparently quiescent, with no symptoms.

*A3a (26 Cases).*—14 deaths occurred in this group. The age groups of these fatal cases were—5-10, 1; 10-15, 2; 15-20, 5; 25-30, 2; 35-40, 3; 45+, 1. The spit was persistently positive in all but the little girl of 5 years. In her case, and in two others, the disease was generalised. Pneumothorax treatment in two cases failed to check progress.

Of the remaining 12 cases, 2 were taken home without having shown any response to treatment, and died within some weeks of discharge. Five were discharged afebrile with a positive spit, and 2 afebrile with a negative spit, and quiescent.

*A3c (7 Cases).*—All were discharged afebrile and much improved in general health. Four had a persistently positive spit, 1 a positive alternating with a negative, and 2 with a persistently negative spit. One of the latter two had artificial pneumothorax induced.

*C1b (1 Case).*—Tuberculous pleurisy with effusion and cervical adenitis. The induction of artificial pneumothorax and withdrawal of fluid brought about apparent arrest of pleural lesion and marked improvement in general health.

*C1c* (1 Case).—A male, æt. 37, apparently quiescent on admission. Transferred for vocational training to Hairmyres.

*C2c* (3 Cases). — Two were transferred in a quiescent stage to Hairmyres. The third left of his own accord after 13 days.

*C3a* (13 Cases). — Seven deaths occurred. Terminal stages of chronic tuberculosis. One other was taken home in a moribund condition; 2 with no pyrexia after exercise and apparently in good health with little disability but still expectorating tubercle bacilli, were transferred to Hairmyres; 1 adult female, who left of her own accord, was classified C3b+ on discharge, and 2 others as C3c+.

*C3b* (2 Cases).—Both left of their own accord *in statu quo*. In one case the disease was generalised.

*C3c* (21 Cases).—Deterioration and pyrexia occurred in 3 cases, of whom 1 died in hospital, while 2 were taken home. Three went home *in statu quo*, while 14 others were discharged with improvement in general health, 8 to Hairmyres and 6 home.

Only in one, the remaining case, was the condition quiescent on discharge. This was a female, æt. 42, with many bacilli in the spit on admission. Her general health improved very quickly, her spit became negative, and all signs of activity in lungs disappeared.

The following table is included as interesting and is better appreciated in the light of the foregoing figures of classification:—

Patients admitted with a persistently positive spit, ...	41
(1) Patients discharged with spit positive alternating with spit negative, ... ..	2
(2) Patients discharged with a persistently negative spit, ... ..	5
(3) Patients discharged with a persistently positive spit, ... ..	34

The number of deaths is again high—higher than the previous year. In a total of 82 cases, 22 deaths are recorded.

The age groups of these fatal cases are as follows:—

Age Groups, -	-	-	-5	-10	-15	-20	-25	-30	-35	-40	-45	45+	Total.
Fatal Cases,	-	-	—	1	2	4	3	3	1	4	1	3	22

and the duration of illness as follows:—

Duration of Disease.	Under 3 mths.	Under 6 mths.	Under 1 year.	Under 18 mths.	Under 2 yrs.	Under 3 yrs.	Under 4 yrs.	4 yrs and over.
Fatal cases, - - —	4	5	4	1	3	3	2	

i.e., in 14 cases the disease might be described as the acute form. The classification of the fatal cases on admission was as follows:—

A3a No spit, 1.; A3a + 13.; C3c + 1.; C3a Neg. 2.; C3a + 5.;

#### PULMONARY TUBERCULOSIS IN CHILDREN UNDER 15.

(6 Cases.)

All suffered from the usual adult type of parenchymatous disease of varying extent. The three fatal cases tabulated above were classified A3a + on admission, and death took place after short periods of illness.

Two were classified A1c neg. on admission. One of these has already been described under results of treatment, while the other received artificial pneumothorax treatment and has responded remarkably well.

The sixth case, A2c, no sputum on admission, was transferred to Hairmyres after 39 days.

#### SPIT NEGATIVE PULMONARY TUBERCULOSIS.

(21 Cases.)

The number includes the three children already mentioned and two adults, A2a and C1b, with no sputum.

Two young adults, A1c and C1b, had tuberculous pleurisy with effusion, but recovered with treatment without manifesting any evidence of active parenchymatous spread.

In two other cases the Ministry of Pensions' diagnosis was accepted, but clinical evidence in both suggested a post-active type.

The diagnosis in all spit negative cases has been established in conformity with the Trudeau criteria.

#### ARTIFICIAL PNEUMOTHORAX TREATMENT.

This form of treatment is a method of *immobilisation* of the lung by the introduction of air into the pleural cavity. It is very generally used now as adjunct to routine treatment of pulmonary tuberculosis, and during the year under review it has been introduced to the treatment armamentarium of this Sanatorium. While its success depends upon an intelligent selection of cases and the co-operation of the



patient, it may be used as an accessory method of treatment in many cases for whom the chance of "arrest" might otherwise be considered hopeless. It is the most direct and least drastic method of local attack on the pulmonary lesion and of definitely checking its progress. There are certain types of cases for which the treatment is most suitable, *e.g.*, progressive unilateral disease which does not respond to routine treatment, or cavitation with recurring hæmoptysis, but it may also be used of choice or of necessity in many other types under certain conditions which offer a reasonable chance of recovery.

The induction and refills have been undertaken in the County Hospital, Motherwell, where X-ray control is convenient. The Marshall Instrument made by Down Bros. has been used and the patient has been retained until after the first or second refill.

Of the patients discharged during the year, 3 have received the treatment. Notes of each case are appended.

(1) I. D., a male, æt. 20. Classified A3c+ on admission with cavitation in left apex and comparatively few nodules in right lung. Hæmoptysis had occurred. A perfect collapse followed induction, and after the third refill, two negative spits were recorded, and the amount of sputum halved. He left the Institution of his own accord.

(2) N. M'L. and (3) T. H., two young adult males, and classified A3a+ on admission. Acute types of recent onset and routine treatment had failed to check deterioration. Artificial pneumothorax was undertaken with the approval of their parents in a last endeavour to arrest the progress. In (3) induction failed twice, due to pleural adhesions, and the treatment was abandoned. He died 7 weeks later. In (2) the initial induction on left side was very successful and 4 refills were given. The immediate improvement was quite sensational. The temperature subsided, the P.R. became normal, and tubercle bacilli disappeared from spit. This very satisfactory state of affairs persisted for four weeks. Relapse occurred with an acute "flare up" in right lung. Pneumothorax treatment was then abandoned. Release of air in left pleural cavity failed to relieve the dyspnoea and death supervened two months later.

In all, about 12 patients have received artificial pneumothorax treatment, and the remainder are still in residence at the end of the year. The results of the treatment for them will be included in the report for 1931.

## BIRTH OF TWINS IN THE SANATORIUM.

The following notes are interesting:—

Mrs. C. M. was admitted on 31/10/29. During the previous August, while 3 months pregnant, she had a hæmoptysis without any antecedent, significant symptoms. The diagnosis of pulmonary tuberculosis was then established, and the presence of tubercle bacilli confirmed in the sputum. Thereafter cough and spit persisted and her general health deteriorated.

On admission she was emaciated and frequently sick with distressing cough and scanty muco-purulent spit, which contained bacilli. Surface signs in chest revealed a widespread and active lesion in the upper half of the left lung. Gestation was adjudged to be about 6 months and the probable date of confinement 10/2/30. There was no history of abnormality in her first confinement, 14 months previously, and the pregnancy on this occasion appeared to be normal with a diagonal conjugate of 5 inches, urine clear, and blood-pressure normal. A plural pregnancy was not diagnosed.

No change in symptoms noted prior to the onset of labour, which occurred prematurely and precipitately after a hearty dinner on Christmas day. The second and bigger twin was born within 3 hours of the onset of labour, and the third stage was not delayed. The twins weighed 4 lbs. 4 ozs. and 4 lbs. 9 ozs. respectively.

The mother's general condition deteriorated after her confinement with increased toxæmia, pulmonary activity and tubercle bacilli more numerous in the spit. This acute phase lasted for 6 weeks, and thereafter the temperature subsided and the pulmonary lesion retrogressed. Cough became less troublesome, the spit negative, and the general health improved. She was discharged 7 months later, quiescent.

The twins, after a difficult first month, gained weight and thrived without interruption. They were vaccinated at 4 months. At the time of discharge home with their mother, both babies were vigorous and healthy and weighed 13 lbs. 12 ozs. and 13 lbs. 14 ozs. respectively.

Moro and Von Pirquet tests were applied to each during the first week and once a month thereafter. The results were unequivocally negative on each occasion.

Mother and babies were discharged home on 31/7/30.

In September both twins were admitted to Calderbank House, with vomiting, diarrhoea, and losing weight. Treatment failed to check deterioration and both died within a few hours of each other on 26/10/30.

*P.M. reports—1st twin.*—Acute ante-mortem intussusception of ileum, 8 inches of bowel invaginated. Slight hyperæmia of mesentery. No ulceration of mucosa. *No tuberculous glands in abdomen.* Lungs normal. *No glands in hilum.*

*2nd twin.*—Hyperæmia of lower bowel and associated mesentery. No ulceration of mucosa. *No tuberculous glands in abdomen.* Lungs normal and *no glands in hilum.*

### Non-Pulmonary Tuberculosis.

(8 CASES.)

TUBERCULOSIS OF THE BONES AND JOINTS (3 Cases).—Grouped as follows:—(1) ankle joint, 1; (2) hip joint, 1; (3) spine, 1.

(1) A male, æt. 19, with old standing ankle lesion, was admitted in view of kidney involvement and deterioration of general health. He left of his own accord after 9 days.

(2) A male, æt. 23, with discharging sinuses since childhood about left hip joint. Amyloid disease and generalisation had supervened prior to admission. He died after 52 days.

(3) A case of infantilism, æt. 17, with re-activation of an old standing spinal caries. He was admitted from the County Hospital, Motherwell, following operative treatment and made a good recovery. He was discharged without any increased deformity and all sinuses healed.

### TUBERCULOSIS OF ABDOMEN.

(4 Cases.)

Death occurred in one young adult, æt. 16, following a general spread to multiple joints and lungs. A second adult, æt. 23, was admitted following laparotomy in the Glasgow Royal Infirmary. There was no urgency for institutional treatment here, and as the domestic conditions were suitable, she was allowed to go home after 7 days.

Two children under two years had prolonged periods of treatment. The diagnosis in each case was made on the following data—Distensions, resistance, persistent sub-acute pyrexia and sensitive skin reactions. Both were discharged well.

## TUBERCULOUS CERVICAL ADENITIS.

(1 Case.)

A little girl, æt. 2, with fibro-caseous adenitis and sinus. Healing and improvement in health was rapid.

**Tuberculised Group.**

(9 CASES.)

This classification is reserved for those children in whom no diagnostic localising signs were detected, but whose symptoms were suggestive and who responded to tuberculin skin and subcutaneous tests.

Included in this number is one adolescent male, who had been slow to recover from influenza. While no certain evidence could be established for a diagnosis of pulmonary tuberculosis, a marked local and general reaction followed the subcutaneous inoculation of .5 c.c. of 1/100 Koch's Old Tuberculin. While in hospital he quickly regained normal health and vigour, and was transferred to Hairmyres.

Of the eight children under 15 years, four were spit positive contacts of mothers who were undergoing sanatorium treatment at the same time. The admission of very young children along with the spit positive mothers is to be commended. The solution of the domestic difficulty in this way induces the mother to accept sanatorium treatment earlier. The children are isolated under hygienic conditions, and the mother is more contented in residence.

Two others had tonsils and adenoids removed in Calderbank Home, and were later discharged well.

One girl was transferred to the County Hospital with diphtheria. The remaining case went to Hairmyres.

These tuberculised patients remain under domiciliary and dispensary supervision, and a reasonable hope is entertained that if re-activation occurs in the original focus of disease, the symptoms will be recognised early, and the child re-admitted to the sanatorium without delay.

### Non-Tuberculous Diseases.

The following table shows the diagnosis prior to admission and the established diagnosis on discharge:—

Admitted as Pulmonary Tuberculosis		Admitted as Abdominal Tuberculosis		Established Diagnosis.
Adult	Child	Adult	Child	
1	—	—	—	Neurasthenia.
—	—	—	1	Chronic Nephritis.
—	2	—	—	Bronchiectasis.
1	—	—	—	Asthma.
1	—	—	—	Basal Fibrosis.
—	—	—	1	Septic Cervical Adenitis.
—	1	—	—	Pneumococcal Empyema.
—	—	—	1	Post-Operative Debility.
—	—	—	1	Constipation.

The case of pneumococcal empyema was transferred to the County Hospital for resection of rib. The asthma case suffered severely and frequently from typical attacks of acute dyspnoea and was transferred to Hairmyres where the environment appears to be more favourable to this condition.

The remaining cases after periods of treatment varying from one month to fifteen months were discharged home much improved or well.

### Artificial Sunlight Treatment.

#### OUT-PATIENT CLINIC.

The clinic, equipment, and staff have remained as at its installation in 1927. In September of the year under review the clinic was discontinued, the necessary accommodation and equipment having been provided in the Health Institute, Dykehead. The following table shows the number of patients dealt with and the total treatment given under Tuberculosis and Maternity and Child Welfare Schemes:—

	Number of Patients com- mencing treatment.	Total Number of Irradiations.	Total Irradiations (in minutes).	
			General.	Local.
Tuberculosis Scheme,	30	792	10,063	8,769
Maternity and Child Welfare Scheme, -	14	201	2,531	—
Totals, -	44	993	12,594	8,769

## DISEASES DEALT WITH.

(44 Cases.—Total attendances, 993.)

The following table shows the types of diseases dealt with and the progress made under treatment. In respect of the cases under the Maternity and Child Welfare Scheme, the arrested column must be read as maximum improvement:—

Tuberculosis Scheme	Number of Cases commencing treatment	Treatment Completed.					Treatment discontinued.
		Total	Arrested	Imp.	I. S. Q.	Worse	
T.B. Adenitis, with Sinus, -	10	10	5	3	1	*1	—
T.B. Enlarged Glands, -	8	6	3	3	—	—	2
T.B. of Skin, -	6	5	2	3	—	—	1
T. B. Synovitis, -	2	2	1	1	—	—	—
Lupus Erythematosus, -	2	2	—	2	—	—	—
General Debility and Bronchitis, 2	2	2	1	1	—	—	—

## MATERNITY AND CHILD WELFARE:—

Debility of Gastro-intestinal origin, -	5	3	1	—	2	—	2
Debility and Alopecia following Pneumonia, -	1	1	1	—	—	—	—
Debility and Enlarged Glands, -	1	1	1	—	—	—	—
Debility and Bronchitis, -	1	1	1	—	—	—	—
Marasmus, -	1	1	—	—	1	—	—
Congenital Debility, -	1	1	—	1	—	—	—
Chorea and V.D.H., -	1	1	—	1	—	—	—
P.N. Debility, -	3	3	—	3	—	—	—

\*A boy, æt. 7, with enlarged glands anterior to slight mastoid on left side and gland abscess in posterior triangle on same side. After thirteen irradiations abscess formation occurred in the anterior gland mass and both abscesses were incised. The parents removed from district immediately afterwards and treatment was discontinued.

## T.B. ADENITIS WITH SINUS.

(10 Cases.)

The maximum result is recorded in 5 cases. While the degree and severity and the duration of treatment varied, the result recorded in all is the same, generally healed scars and glands subsided. There is no doubt that healing processes here are accelerated by ultra-violet ray treatment and are less prone to relapse.

## T.B. ENLARGED GLANDS.

(8 Cases.)

This group includes those cases which, at the time of coming under observation, are discrete, with no evidence of caseation, and all those definitely hyperplastic in type. Six of these completed the treatment and the maximum improvement is recorded, *i.e.*, glands subsided, in three, while the other three were also improved to a lesser extent.



## TUBERCULOSIS OF THE SKIN.

(6 Cases.)

It is generally admitted that this type of tuberculosis is effectively treated by ultra-violet radiation. Treatment is tedious, but with the co-operation of the patient, progressive healing can be confidently expected.

## DEBILITY OF GASTRO-INTESTINAL ORIGIN.

(5 Cases.)

All babies or toddlers are really cases of malnutrition. These children respond to this method of treatment and the disappointing results recorded are due not to the failure of treatment but to the indifference and lack of co-operation by the mother.

## P.N. DEBILITY.

(3 Cases.)

The exact value here is difficult to assess, but in all three cases the mothers' appreciation of the beneficial effects of the treatment, associated with definite improvement in their appearance and vigour, is sufficient to justify some belief in this efficiency.

**Special Examinations and Treatment.**

**DENTAL TREATMENT.**—Mr. Smith, L.D.S., having taken over a practice elsewhere, resigned his appointment at the beginning of the year and Mr. Allan, L.D.S., Wishaw, was appointed to the vacancy. He made 3 visits to the Sanatorium during the year and treated 24 patients. The total number of extractions was 79.

**X-RAY EXAMINATIONS.**—Of the patients discharged during the year, 49 were X-rayed at the County Hospital, Motherwell, the examinations being necessary for diagnostic reasons.

**EAR, NOSE, AND THROAT CLINIC.**—Eight examinations were made by Dr. Adam at Motherwell County Clinic. Thermo-cautery treatment was given in the case of a young male with lupus of larynx. Tonsillectomy was done in two children.

In conclusion, grateful recognition is made of the services of local ministers and R.C. clergy throughout the year and of the frequent concert and band entertainments to patients voluntarily provided by local parties.

## COUNTY ORTHOPÆDIC HOSPITAL, STONEHOUSE.

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*Physician-Superintendent*—ALEXANDER SMITH, M.B., Ch.B.

*Visiting Physician*—ALEXANDER H. M'LEAN, M.B., Ch.B.

*Matron*—Miss A. SHORE.

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### ADMINISTRATION.

*Buildings and Grounds.*—The buildings have undergone no notable alterations during the year. Changes have not been effected, not because of their urgency and desirability, but because it has been thought well to wait until the proposed extensions have been planned. Apart from the need for beds for more cases, we have very inadequate accommodation for those already in hospital. The hospital habitually treats at least double the number of patients it has space for. Some of the buildings require drastic alteration to bring them up to the requirements of modern practice in treating non-pulmonary tuberculosis: for instance, the verandahs should have additions and proper exposures so that heliotherapy could be scientifically carried out. Pavilion I has no verandah accommodation at all, and this entails constant moving of beds in and out of doors in the summer months: while in Pavilion II the covered part of the verandah can accommodate half the beds only. Pavilion III has a very suitable verandah, but the ward, constructed of wood and consisting of a series of separate small rooms, admits of no satisfactory supervision by the staff and is, in addition to its grossly overcrowded state, structurally of such a poor description, that scarcely anything else than complete renewal could make it suitable for modern requirements in treatment and comfort.

The difficulties attendant on the overcrowded nurses' home have already been frequently commented on.

The new treatment block is able to cope with the indoor and outdoor work satisfactorily, and round it as a nucleus an efficient hospital unit could easily be established. The tendency has been to make the best of the existing system and not to attempt small patchwork improvements in the hope that the extensions will be soon under way.

During the year defective plaster and wood work were renewed in the treatment block and the inside entirely repainted. This was carried out by the Works Department.

The grounds have been maintained in good condition and their charm is one of the chief advantages of the institution. Twenty-two acres are in the site and only a few of these have been used. The roads will soon need repair.

*STAFF.*—*The Medical Staff*, as before, consists of a resident-superintendent and a visiting physician whose chief duties are the administration of anæsthetics.

The visiting dentist gives treatment when necessary. The teeth of the patients are thus kept in good condition and the importance of dental hygiene is impressed on the patients.

*The Nursing Staff*, consisting of a matron, 5 trained sisters, and 16 probationers, has been unchanged.

*Clerical Staff.*—1 clerkess, full-time, non-resident.

*Teaching Staff.*—1 full-time (non-resident) female teacher.

*Domestic Staff.*—1 cook, 1 laundrymaid, and 13 maids.

*Outdoor Staff.*—2 engineers, 2 gardeners, and 1 fireman.

## PATIENTS.

For the sake of convenience, the patients are dealt with under the headings of indoor and outdoor.

### INDOOR.

During the year 89 patients were admitted and 87 discharged. Their places of residence are detailed in Table I. With two exceptions from the Burgh of Hamilton they all came from the County.

TABLE I.

Avondale, - -	6	Glasford, - -	1
Blantyre, - -	12	Hamilton, - -	2
Bothwell, - -	20	New Monkland, -	1
Cambuslang, - -	11	Old Monkland, -	4
Cambusnethan, -	5	Shotts, - - -	12
Dalserf, - - -	7	Stonehouse, - -	2
East Kilbride, -	2		—
			85
Hamilton Burgh, - - - -			2
			—
		Total, - - -	87
			—

TABLE II.  
AGE AND SEX DISTRIBUTION.

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age—Groups.	Tuber- culous.	Non- Tuberculous.
— 5	7	9	16	Pre-School,	10	6
—10	17	9	26	School Age,	{ 19	7
—15	10	6	16		{ 14	2
—20	3	6	9	Adolescent,	{ 6	3
—25	3	3	6		{ 5	1
—30	2	1	3	Early Maturity,	{ 3	—
—35	1	3	4		{ 4	—
—40	1	1	2		{ 2	—
—45	—	1	1		{ 1	—
—50	1	—	1	Late Maturity,	{ 1	—
—55	—	1	1		{ —	1
—60	—	1	1		{ 1	—
—65	—	—	—		{ —	—
—70	—	1	1		{ 1	—
	45	42	87		67	20

#### NON-TUBERCULOUS DISEASE.

Twenty patients were found to be suffering from non-tuberculous disease, and the following table gives details of the diagnosis, treatment and results in this group.

It will be seen that thirteen were admitted because of some bone or joint complaint. In only one (Case 9) was there no such lesion. The child was admitted because his cervical spine was suspicious, and it was only after careful clinical and radiological observation that it could be established that his spine was normal.

It will be noted that two cases of Perthes' Disease were encountered. This condition is becoming relatively common, whereas a few years ago it was not differentiated from tuberculosis of the hip. However, it is a clinical entity behaving in an entirely different way. Its causation is still unknown; some hold that it is a manifestation of an earlier rachitic condition, some that it is due to a congenital alteration in the epiphyseal nucleus. It has also been suggested that it may result from a traumatic alteration in the blood distribution between epiphysis and diaphysis, giving rise to hypertrophy of the neck of the femur from increased blood supply, and an atrophy of the epiphysis from diminished blood supply. The X-ray picture

TABLE III.

No. of Case.	Sex.	Age in Years.	Disease.	Treatment.	Result.	Residence in days.	Remarks.
1	M.	10	Perthes' disease.	Extension and rest.	Healed.	267	Walking normally.
2	M.	8	Double Perthes' disease.	Extension and rest.	Healed.	59	Transferred to County Hospital, Motherwell, with diphtheria.
3	F.	16	Typhoid arthritis, left hip.	Extension and rest.	Well.	62	Admitted from County Hospital, Motherwell.
4	M.	12	Acute septic arthritis, left ankle.	Incision and drainage.	Well.	31	Admitted as Tb. ankle.
5	F.	18	Acute septic prepatellar bursitis.	Incision and drainage.	Well.	34	Admitted as Tb. knee.
6	F.	50	Gummata of tibia.	Antispecific.	Well.	51	—
7	F.	5	Infantile paralysis, left leg.	Tendon lengthening, splintage, electricity.	Much improved.	153	Walking well.
8	F.	9	Paralytic talipes.	Serial plasters.	Improved.	296	—
9	M.	3	Eczema.	Ointments, &c.	Well.	59	Sent for observation as cervical spine case.

10	M.	10	Scoliosis.	Exercises. Support.	Well.	65	—
11	M.	5	Birth injury, left shoulder.	Splintage, &c.	Improved.	97	Much improved, now has good abduction.
12	M.	4	Talipes equinovarus.	Manipulations and plasters.	Greatly improved.	879	Walking well.
13	F.	$\frac{8}{1\frac{1}{2}}$	Congenital contracture of little finger.	Excision of fascia.	Improved.	51	—
14	F.	16	Sarcoma of neck.	Excision of tumour.	Died.	34	Patient died from second- aries.
15	M.	4	Acute cervical adenitis.	Incision and drainage.	Well.	27	—
16	M.	$2\frac{10}{12}$	Acute cervical adenitis.	Incision and drainage.	Well.	13	—
17	M.	$1\frac{6}{12}$	Acute cervical adenitis.	Incision and drainage.	Well.	59	—
18	M.	3	Acute cervical adenitis.	Incision and drainage.	Well.	18	—
19	M.	13	Acute cervical adenitis.	Incision and drainage.	Well.	2	—
20	F.	20	Abscess in pharynx.	Incision and drainage.	Well.	5	—



is characteristic, with flattening of the head of the femur, fragmentation of the epiphysis, and thickening of the neck. The clinical findings are strangely at variance with what would be expected from this picture, there being only slight limitation of movement.

I have frequently observed that these patients tend to have slight elevations of temperature after exercise, such as one would find in a mildly active tuberculous condition, but otherwise there is no resemblance to tubercle.

There remains much work to be done still on this condition and other forms of epiphysitis in children, including simple flattening of the femoral head.

Cases 14 to 20 were admitted because of glandular swellings. All were simple acute conditions save one who had a sarcoma which caused death by metastases after the original had been removed.

### NON-PULMONARY TUBERCULOSIS.

In the remaining sixty-seven patients the diagnosis of non-pulmonary tuberculosis was confirmed, and these are reviewed in the usual tabular form.

#### SPINAL DISEASE (15 Cases).

(See Pages 264 and 265.)

Of the fifteen cases, seven were able to be dismissed with their lesions healed and consolidated, four were greatly improved but had their treatment interrupted. Three of these four were transferred to the County Hospital, Motherwell, with diphtheria, but were subsequently readmitted. Three patients died—one from cardiac disease, one from amyloid disease, and one from intercurrent cardiac disease. These results are fairly satisfactory when it is borne in mind that treatment for spinal caries is only effective if it is instituted before sinus formation has occurred, and it is not possible for us to get patients always before that catastrophe. Once a psoas abscess has been opened or allowed to break down, secondary pyogenic invasion and amyloid disease are almost the inevitable sequelæ, sometimes after a short period, sometimes after a long delay, and palliative measures alone are possible. It will be observed that the recoveries are among those who had no sinuses, even though abscesses were present, or even paresis.

## HIP JOINT (8 Cases).

(See Page 266.)

Seven of the eight cases made good recoveries, with healed lesions. Four of these had restoration of the epiphysis radiologically, and a fair degree of functional movement restored; while three, advanced cases with disorganisation of the joint, had sound ankylosis in a good abducted position, with the exception of Case 27, where the deformity was uninfluenced. It will be seen that sinus formation here is not nearly so grave a calamity as in spinal disease, and is frequently able to be controlled. It adds greatly to the duration of stay in hospital necessary to get a quiescent lesion, however, and increases the destruction of bone. It is rare to get any good functional restoration after a sinus and its concomitant pyogenic invasion have been present: ankylosis usually results.

## KNEE JOINT (8 Cases).

(See Page 267.)

The knee cases have done uniformly well: five have been discharged with the disease quiescent, while the sixth was transferred to Dalsersf Hospital with his treatment almost completed. Two patients had almost complete restoration of function in the joint and restoration of the osseous structure: these were cases without abscess or sinus formation.

Two others had firmly ankylosed knees, with the lesion well healed. The knee-joint is the particular site where, after tuberculous mischief, unless the restoration of the bone is such as to make the joint almost normal, it is better to have a firm and stable ankylosis. Otherwise flexion deformity recurs, or a flail-like limb, unsuitable as a supporting organ, is the result.

In one of the cases amputation through the middle third of the thigh became necessary: this was because of old-standing and very active disease complicated by a virulent secondary pyogenic infection. The patient was gravely ill, but made an uninterrupted recovery after operation. He was subsequently sent to Hairmyres Colony.

## OTHER JOINTS (6 Cases.)

(See Page 268.)

These cases call for little comment. One patient with sacro-iliac disease died. The sacro-iliac joint still remains the gravest site for osseous or articular caries.

TABLE IV.—SPINAL DISEASE (15 CASES).

No. of Case.	Condition on Admission Region Affected, &c.	Sex.	Age.	Duration of Illness in Years.	Treatment.	Result.					Residence in Days.	Remarks.
						Healed.	Improved.	I.S.Q.	Worse.	Died.		
1	Atlanto - occipital with rigidity.	F.	34	1	Recumbency and extension.	1	—	—	—	—	708	Able to walk and in good condition.
2	First and second dorsal.	F.	31	3	Recumbency and extension.	1	—	—	—	—	852	Slight kyphosis.
3	Fourth cervical to sixth dorsal with extensive kyphosis and paraplegia.	F.	9	5	Recumbency and extension.	—	—	1	—	—	587	Transferred to Glen-lea Hospital. Not likely to improve.
4	Second to sixth dorsal with gross destruction. Abscess and sinus.	M.	5	3	Recumbency. Aspiration, &c.	—	—	—	—	1	667	Developed generalised tuberculosis.
5	Third to ninth dorsal with kyphosis and paresis.	M.	4	1	Recumbency. Plaster. Celluloid Jacket.	1	—	—	—	—	506	Well consolidated.
6	Eighth dorsal to second lumbar. Marked kyphosis. Spastic paresis.	M.	9	$\frac{3}{1\frac{1}{2}}$	Recumbency and extension. Celluloid Jacket.	1	—	—	—	—	1900	Able to walk well. Kyphosis improved.

7	(1) Ninth and tenth dorsal, (2) lumbosacral. Complication: cervical adenitis.	M.	34	8		1	—	—	—	824	Slight kyphosis still. Walks well.
8	Dorso - lumbar. Kyphosis with telescoping of vertebrae. Paresis and incontinence.	F.	33	17	Recumbency. Aspiration. Celluloid Jacket. Recumbency.	1	—	—	—	108	Paresis and incontinence gone. Able to walk.
9	Twelfth dorsal-first lumbar. Complication Tb. wrist.	M.	19	1	Recumbency.	—	1	—	—	375	Transferred to Mother well with diphtheria. Since re-admitted.
10	Ninth dorsal to first lumbar with extension to ribs. Sinuses.	M.	19	1	Recumbency, etc.	—	—	—	1	802	Developed amyloid disease and uraemia.
11	Lumbar spine, with paresis.	F.	3	$\frac{3}{12}$	Recumbency.	—	1	—	—	430	Transferred to Mother well with diphtheria.
12	Upper lumbar.	F.	4	$1\frac{6}{12}$	Recumbency.	—	—	—	1	19	Died from cardiac disease.
13	Third and fourth lumbar, with psoas abscess.	M.	6	2	Recumbency. Aspiration.	—	1	—	—	687	Transferred with diphtheria. Since re-admitted.
14	Second, third, and fourth lumbar, with marked kyphosis and paresis and abscess.	M.	8	6	Recumbency. Aspiration. Celluloid Jacket.	1	—	—	—	581	Kyphosis less. Paresis gone.
15	All lumbar spine. Double psoas sinuses.	M.	47	10	Recumbency. Drainage of sinuses.	—	1	—	—	141	Went home for domestic reasons.

TABLE V.—HIP JOINT (8 CASES).

No. of Case.	Condition on Admission. Region affected, &c.	Sex.	Age.	Duration of Illness in Years.	Treatment.	Result.					Residence in Days.	Remarks.
						Healed.	Improved.	I.S.Q.	Worse.	Died.		
16	Left hip. Disease of femoral head with abscesses and sinuses.	F.	1 $\frac{6}{12}$	$\frac{6}{12}$	Incision and drainage.	1	—	—	—	—	188	Sinuses healed. Movements almost normal.
17	Right hip with sinuses. Gross deformity.	M.	10	5	Extension. Drainage, &c.	—	—	1	—	—	1085	Transferred to Motherwell with diphtheria. Since readmitted. Amyloid case.
18	Right hip. Extensive disease with gross deformity and partial dislocation.	M.	6	4	Extension. Manipulation and Plaster	1	—	—	—	—	828	Now ankylosed in good position. Walking well.
19	Left hip. Extensive disease of femur and acetabulum with abscess. Complication. Synovial disease.	M.	14	1	Celluloid Splint. Aspiration. Extension. Celluloid Splint.	1	—	—	—	—	867	Now ankylosed. Walks well. Position good.
20	Right hip. Disease of acetabulum and head of femur.	F.	14	1	Extension. Plaster.	1	—	—	—	—	498	Movements almost normal.
21	Left hip. Erosion of cartilage of femur and acetabulum. Abduction deformity.	F.	16	$\frac{9}{12}$	Celluloid Splint. Extension. Plaster.	1	—	—	—	—	547	Position good. Movements fairly free.
22	Right hip. Old extensive disease, with deformity. Large Abscess.	M.	25	18	Celluloid Splint. Drainage of Abscess. Removal of Sequestra.	1	—	—	—	—	86	Wounds healed. Deformity unchanged.
23	Right hip. Old disease of femur reactivated abscess.	M.	26	17	Incision and Drainage.	1	—	—	—	—	145	Walking well. Transferred to Hairmyres Colony.

KNEE JOINT (6 CASES).

No. of Case.	Condition on Admission. Region Affected, &c.	Sex.	Age.	Duration of Illness in Years.	Treatment.	Result.					Residence in days.	Remarks.
						Healed.	Improved.	I.S.Q.	Worse.	Died.		
24	Left knee. Synovial with enlargement of femoral and tibial epiphyses.	F.	$1\frac{7}{12}$	$\frac{4}{12}$	Extension. Celluloid splint.	1	—	—	—	—	303	Movements free. No deformity.
25	Left knee. Swelling, flexion and subluxation.	F.	8	1	Extension. Manipulation and plaster. Walking caliper.	1	—	—	—	—	1678	Ankylosed in good position. Walks well with caliper, which was required for a short time.
26	Right knee. Disease of synovia and of epiphyses of tibia and femur. Deformity.	M.	8	3	Extension. Aspiration. Plaster.	—	1	—	—	—	413	Now almost healed. Deformity corrected. Transferred to Dakerf to await walking caliper.
27	Right knee. Disease of synovial membrane.	F.	8	$\frac{3}{12}$	Extension. Celluloid splint	1	—	—	—	—	80	Movements free. No deformity.
28	Left knee. Gross disease with flexion and subluxation.	M.	8	1	Extension. Manipulation and plaster. Walking caliper.	1	—	—	—	—	2269	Walks well. Knee ankylosed in good position.
29	Left knee. Disorganisation of joint with many sinuses. Very hectic and ill.	M.	17	2	Amputation through mid-third of thigh.	1	—	—	—	—	178	Now well. Patient is able to get about. Amputation necessary to save his life.



TABLE VII.

## OTHER JOINTS (4 CASES).

No. of Case.	Condition on Admission. Region Affected, &c.	Sex.	Age.	Duration of Illness in Years.	Treatment.	Result.					Residence in Days.	Remarks.
						Healed.	Improved.	I.S.Q.	Worse.	Died.		
30	Left ankle. Astragalus and most of tarsal bones diseased. Sinuses.	F.	40	6	Incision. Scraping.	—	1	—	—	—	68	Left too soon for family reasons
31	Left elbow. Disease of ulna and humerus. Quiescent. Ankylosed.	M.	2 $\frac{6}{12}$	1	Nil.	—	—	1	—	—	2	Chickenpox contact.
32	Right sacro-iliac joint. No abscess.	M.	5	1	Recumbency.	1	—	—	—	—	834	Able to walk normally.
33	Right sacro-iliac joint. Extensive disease with sequestra.	F.	34	1	Aspiration. Sequestrotomy.	—	—	—	—	1	456	Condition progressive. Died of uræmia.

TABLE VIII.

## OSSEOUS LESIONS (5 CASES).

No. of Case.	Condition on Admission. Region Affected, &c.	Sex.	Age.	Duration of Illness in Years.	Treatment.	Result.					Residence in Days.	Remarks.
						Healed.	Improved.	I. S. Q.	Worse.	Died.		
34	Dactylitis of right hand and left foot with abscesses.	F.	2	$2\frac{1}{2}$	Aspiration.	1	—	—	—	—	45	Transferred with diph- theria.
35	Right tibia with abscess.	M.	12	$4\frac{1}{2}$	Aspiration. Rest.	1	—	—	—	—	162	No disability.
36	Eighth rib with abscess.	M.	16	$3\frac{1}{2}$	Incision and scraping.	—	1	—	—	—	58	Transferred to Dal- serf Hospital.
37	Left parietal bone with sequestra and sinuses.	F.	18	4	Sequestra re- moved. Two operations.	1	—	—	—	—	636	Attending out-patient department for light therapy.
38	Gross disease of right ilium with sequestra, &c.	M.	21	6	Operation. Re- moval of sequestra, &c.	1	—	—	—	—	284	—

TABLE IX.

## MULTIPLE TUBERCULOSIS (7 CASES).

No. of Case.	Condition on Admission. Region affected, &c.	Sex.	Age.	Duration of Illness in Years.	Treatment.	Result.					Residence in Days.	Remarks.
						Healed.	Improved.	I.S.Q.	Worse.	Died.		
39	Spine and lungs. Paralysis of lower limbs.	F.	25½	1	Recumbency.	—	—	—	—	1	276	—
40	Left elbow. Right knee with sinuses.	F.	20	1	Recumbency. Aspiration. Splintage.	—	—	—	1	—	309	Developed pulmonary lesion.
41	Right knee. Left hip. Gross deformity.	F.	21	13	Rest. Extension. Splintage.	1	—	—	—	—	32	Able to walk fairly well. Knee ankylosed.
42	Spine. Knee. Wrist.	M.	23	2	Aspiration. Operation.	—	—	—	—	1	242	Became steadily worse.
43	Right foot and ankle. Both hands and right elbow with sinuses.	M.	39	30	Amputation of leg through mid-third.	—	1	—	—	—	138	Amputation stump healed. Other lesi- ons almost quiescent. Attending for light therapy.
44	Right hip and spine with abscess.	F.	57	4½	Aspiration, &c.	—	—	—	—	1	18	Patient admitted in a semi-moribund con- dition.
45	Shoulder, hip, knee, ankle, &c.	F.	65	2	Dressings, &c.	—	—	—	—	1	136	Developed terminal pulmonary lesion.

## OSSEUS LESIONS (5 Cases).

(See Page 269.)

It will be noticed that in the osseous lesions the results are usually good, especially if the focus can be eradicated by operation.

## MULTIPLE TUBERCULOSIS (7 Cases).

(See Page 270.)

Most of the deaths in the Institution occurred in this group. Four died and one was in a dying condition when taken home. They were mostly patients with an overwhelming recrudescence of tubercle in adult life.

One patient went out with her lesions quiescent. They had been settling down for a long time, and the most she required was correction of her deformities to the best extent possible to let her get about. The other remaining patient had one very active lesion of his foot and ankle which was killing him. After this was amputated his other lesions did well.

## TUBERCULOUS CERVICAL ADENITIS.

*Cases 46-67.*

These cases were mostly children and young adolescents. They all suffered from the more extensive forms of glandular tuberculosis. Many of them had had previous treatment by artificial light therapy, either in Institutions or at Centres, and they represent the type of case in which this treatment has proved a failure or has not produced a very quick response. Light therapy is a very valuable means of dealing with glandular tuberculosis, particularly the superficial type associated with scrofuloderma, where operation is unadvisable, or where there is much periadenitis and operation is not possible. Nevertheless, in a minority of cases it fails, and operation in these still affords the best means of getting rid of the diseased focus with the minimum disfigurement. It has to be remembered, however, that some of these cases come to operation because the patient is unwilling to give the time and attention necessary to obtain results from artificial light therapy.

Of the twenty-two cases, only five were without cold abscess formation. These were submitted to complete excision of the mass, and, as a result, healing by first intention was easily obtained.

In other five cases, although the glands had softened centrally, excision was possible at the initial operation, and good healing with a sound scar was soon present.

Eight patients were found to have cold abscesses involving the skin and superficial tissues, and in these only incision and scraping could be carried out. Healing was necessarily more retarded than in the other groups.

The four remaining patients did not need any gland operation. Tonsillectomy sufficed to allow their glands to subside.

All these patients were subjected to artificial light therapy as soon as possible after operation.

*Treatment.*—No innovations have been made during the year in the already well-established methods of treating extra-pulmonary tuberculosis.

Abscesses have been aspirated and modifying fluids of the iodoform-guaiacol group injected. Incision of abscesses has only been carried out when there was a superimposed secondary pyogenic infection. The treatment of complications like abscesses has remained one of the chief functions of the hospital.

Spine cases, as before, have been kept immobilised in hyperextension, some in the dorsal position and some in the ventral, until, clinically, muscular spasm has passed off, and, radiologically, consolidation of the osseous lesion has occurred.

Hip cases have been treated either by direct extension by weights or by the method of Pugh, whereby the body weight is utilised. In a few instances the Pyrford double abduction frame has been used.

When the disease was quiescent celluloid hip splints and spinal jackets have been made. Walking caliper splints have been preferred for knee cases.

In some instances operative treatment in addition has been necessary, frequently for the correction of deformities in lesions previously quiescent, but sometimes as a direct attack on the diseased focus.

The indoor operative work is detailed in the following table :—

Disease.	Number of Cases.	Operation.	Remarks.
T.B. hip.	3	Incision and drainage.	1 well; 2 still under treatment.
T.B. hip.	3	Manipulation and tenotomy.	Well.
T.B. hip.	3	Tenotomy of adductors and subtrochanteric osteotomy.	Well.
T.B. spine with abscesses and sinuses.	6	Incision and drainage.	1 well; 5 still under treatment.
T.B. sacro-iliac joint with sequestra.	1	Removal of sequestra.	Subsequently died.
T.B. knee.	1	Incision of abscess.	Well.
T.B. knee.	1	Amputation.	Well.
T.B. ankle.	1	Amputation.	Well.
T.B. ankle.	1	Incision and drainage.	Improved.
T.B. elbow.	2	Incision and drainage.	Well.
T.B. ilium with sequestra.	1	Removal of sequestra, &c.	Well.
T.B. abdomen.	4	Paracentesis.	Still under treatment.
T.B. cervical adenitis.	13	Excision.	Well.
T.B. cervical adenitis.	8	Incision and scraping.	Well.
Acute cervical adenitis.	5	Incision.	Well.
Acute retropharyngeal abscess.	1	Incision.	Well.
Chronic tonsillitis and adenoids.	7	Enucleating and curetting.	Well.
Acute septic arthritis of ankle.	1	Incision and drainage.	Well.
Acute prepatellar bursitis.	1	Incision and drainage.	Well.
Whitlow, &c.	3	Incision, &c.	Well.
Sarcoma of neck.	1	Excision of tumour.	Subsequently died from metastases.



*X-Ray Department.*—This is still working to its full capacity doing outdoor and indoor radiological examinations. The apparatus has not been modified in any way. During the year 513 radiological examinations were made, 170 of these being of indoor patients and 343 of outdoor patients.

*Artificial Light Therapy.*—Two carbon arc lamps and two mercury vapour lamps are still in use. Treatment is carried out on both indoor and outdoor patients. Natural heliotherapy is used as far as possible for the indoor patients. Details of the outdoor treatment are given subsequently.

*Dental Treatment.*—The visiting dentist paid five visits during the year and 36 patients were treated as follows:—

Extractions, 51; fillings, 14; scaling, 4; total extractions under chloroform, 2.

*Ear, Nose, and Throat Specialist.*—Two cases were seen by the Specialist. One patient had an old pharyngeal abscess opened and treated by him. The other patient was seen in consultation for middle ear disease.

### Outdoor Department.

The work of the outdoor department is detailed in the following tables. 1,201 new cases were attended during 1930, all on the recommendation of the Welfare Centres, Tuberculosis Dispensaries or general practitioners.

#### Consultations.

##### A.—TUBERCULOUS DISEASE.

Pulmonary, . . . . .	8
Glandular, . . . . .	17
Skin, . . . . .	2
Bones and Joints—Spine, 7; Hip, 11; Knee, 11; Ankle, 2; Wrist, 4; Elbow, 1; Others, 11, . . . . .	47
Total, . . . . .	<hr/> 74 <hr/>

## B.—NON-TUBERCULOUS DISEASE.

CIRCULATORY SYSTEM, &c.	Mitral Stenosis, 3; Aneurysm of Aorta, 1, Arterio-Sclerosis, 1; Purpura Hæmorrhagica, 1, . . . . .	6
PULMONARY SYSTEM.	Pulmonary Fibrosis and Bronchiectasis, 6; Bronchitis, 6; Pleurisy, 5, . . . . .	17
DIGESTIVE SYSTEM.	Gastric Ulcer, 8; Duodenal Ulcer, 2; Gastritis, 3; Cancer of Stomach, 2; Gallstones, 1; Cardospasm, 1; Appendicitis, 2; Intestinal Stasis, 2, . . . . .	21
NERVOUS SYSTEM.	Infantile Paralysis, 4; Disseminated Sclerosis, 3; Epilepsy, 1, . . . . .	8
DISEASES OF SPECIAL ORGANS.	Chronic Tonsillitis and Adenoids, 148; Enlarged Turbinates, 2; Chronic Otitis Media, 2; Iritis, 1, . . . . .	153
BONES AND JOINTS.	Congenital Deformities, 8; Fractures, 60; Dislocations, 8; Sprains, &c., 33; Synovitis, 4; Rheumatoid Arthritis, 17; Necrosis, 3; Osteomyelitis, 4; Periostitis, 4; Exostosis, 2; Osteoma, 1; Sarcoma, 2; Scoliosis and Kyphosis, &c., 4; Rickets, 7; Perthe's Disease, 3, . . . . .	160
SKIN.	Sycosis Barbae, 1; Acne, 1; Alopecia, 3; Sebaceous Cyst, 4, . . . . .	9
SEPTIC DISEASES.	Abscesses, 8; Cellulitis, 4; Whitlow, 3, . . . . .	15
MISCELLANEOUS.	Phimosis, 17; Fibrositis, 8; Foreign Bodies, 8; Varicose Veins, 1; Ingrowing Toenail, 1; Papilloma of Tongue, 1; Gunshot Wounds, 1; Wounds of Hand, 1; Chronic Adenitis, 8; Prepatellar Bursitis, 1; Dental Caries, 9; Renal Calculi, 5; Dupuytren's Contracture, 2; Parotid Tumour, 1; Branchial Cyst, 1; Debility, 3; Diabetic Gangrene, 1, . . . . .	69
	Total, . . . . .	<u>458</u>

## OPERATIONS.

System.	Disease.	No.	Operation.	Result.
OSSEOUS.	Osteomyelitis of phalanx.	5	Incision, &c.,	Well.
	Colles' Fracture.	1	Reduction under chloroform.	Well.
	Fracture of radius and ulna.	1	Reduction and setting.	Well.
	Fracture-dislocation of shoulder.	1	Reduction and setting.	Well.
	Compound fracture of phalanx.	1	Amputation.	Well.
ARTICULAR.	Synovitis of knee.	1	Aspiration.	Well.
	Prepatellar bursitis.	1	Excision of bursa.	Well.
	Suppurative bursitis.	1	Incision.	Well.
	T.B. hip with abscess.	1	Aspiration.	Admitted later.
	T.B. wrist.	1	Aspiration, &c.	Admitted later.
GLANDULAR.	T.B. cervical adenitis.	4	Excision.	Well.
	T.B. cervical adenitis.	4	Incision.	Well.
	T.B. cervical adenitis.	1	Aspiration.	Well.
	T.B. popliteal adenitis.	1	Excision.	Well.
	Septic cervical adenitis.	9	Incision.	Well.
MISCELLANEOUS.	Chronic tonsillitis and adenoids.	178	Enucleating and cutting.	Well.
	Phimosis.	15	Circumcision.	Well.
	Dupuytren's Contracture.	1	Excision of fascia.	Well.
	Cold Abscess.	2	Aspiration.	Well.
	Papilloma of leg.	1	Removal.	Well.
	Papilloma of face.	1	Removal.	Well.
	Fibroma of leg.	1	Removal.	Well.
	Acute abscess.	5	Incision.	Well.
	Ingrowing toenail.	3	Removal of wedge.	Well.
	Septic finger.	1	Removal of nail, &c.	Well.
	Septic sebaceous cyst.	3	Incision.	Well.
	Hallux valgus	2	Excision.	Well.
	Foreign body in arm.	1	Removal.	Well.
	Saw wound of thumb.	1	Suture of tendons.	Well.
	Dental caries,	10	Extraction.	Well.

## X-RAY EXAMINATIONS.

## A.—TUBERCULOUS DISEASE.

Pulmonary Tuberculosis, . . . . .	10
Hilus Tuberculosis, . . . . .	3
Pleurisy, . . . . .	6
Bones and Joints—Spine, 4; Hip, 7; Knee, 7; Wrist, 4; Shoulder, 1; Others, 4, . . . . .	27
Total, . . . . .	<u>46</u>

## B.—NON-TUBERCULOUS DISEASE.

PULMONARY SYSTEM.	Normal, 1; Chronic Bronchitis, 11; Pulmonary Fibrosis, 7, . . . .	19
CIRCULATORY SYSTEM.	Mitral Stenosis, 3; Aneurysm of Aorta, 2,	5
DIGESTIVE SYSTEM.	Barium Meal :—Normal, 4; Gastric Ulcer, 4; Duodenal Ulcer, 1; Chronic Appendi- citis, 1; Cancer of Stomach, 1, . . . 1! Barium Enema :—Chronic Appendicitis, 1, 1 Cholecystitis, 1, . . . . 1 — 13	
GENITO-URINARY SYSTEM.	Normal, 6; Renal Calculi, 6, . . . .	12
INJURIES TO BONES AND JOINTS.	Normal, 48; Fractures, 56; Sprains, 11; Dislocations, 6; Gunshot Wound, 1; Subperiosteal Haematoma, 3, . . . .	125
DISEASES OF BONES AND JOINTS.	Normal, 11; Synovitis, 6; Osteomyelitis, 9; Rheumatoid Arthritis, 7; Sarcoma of Femur, 2; Osteoma of Humerus, 1; Exostosis, 1; Rickets, 3, . . . .	40
DEFORMITIES OF BONES AND JOINTS.	Congenital Dislocation of Hip, 1; Scoliosis, 4; Hallux Valgus, 3; Hallux Rigidus, 1,	9
MISCELLANEOUS.	Normal, 7; Teeth, 3; Shrapnel in Neck, 1; Foreign Body swallowed, 3, . . . .	14
	Total, . . . .	<u>237</u>

*Ultra-Violet Light Therapy.*—55 patients attended for the first time for Ultra-Violet Light Therapy; 2,708 re-visits were paid and 4,459 exposures were given.

*Electric Treatment.* — 16 patients received courses of electric treatment for rheumatoid arthritis, &c.

*Miscellaneous and Dressings.*—The remaining 55 cases attended for dressings, plasters, injections, &c.

*Re-visits.*—In addition to the new cases, re-visits were paid during the year for the undernoted purposes :—

Operations, 19; X-ray examinations, 60; Consultations, 255; Miscellaneous, 19; Electric treatment, 182; Dressings, 439.

## COUNTY HOSPITAL, DALSERF.

*Visiting Medical Officer*—Dr. ALEXANDER SMITH, M.B., CH.B.

*Matron*—Miss M. LAMONT.

**BUILDINGS.**—No alteration has been made in the buildings during the year.

The hospital was used, as formerly, as an annexe for Stonehouse. It has not been possible, owing to great demands for beds, to keep the more convalescent type of cases there.

**STAFF.**—The *Nursing Staff* consists of one fully-trained sister in charge and three probationers. *Domestic Staff.*—A cook and one maid. *Outdoor Staff.*—One male, full time, non-resident, who acts as attendant and gardener.

**ACCOMMODATION.**—6 male beds, 5 female beds, and 5 cots.

**PATIENTS.**—10 patients (8 male and 2 females) were admitted during the year, and 13 patients (11 males and 2 females) were discharged during the year.

### PLACE OF RESIDENCE.

Bothwell, - - -	5	New Monkland, -	1
Cambuslang, - -	1	Old Monkland, - -	2
Cambusnethan, -	1	Shotts, - - -	1
Dalsarf, - - -	2		

Total,	13
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### AGE AND SEX DISTRIBUTION.

Years.	Males.	Females.	Total.
- 5	2	1	3
- 10	3	1	4
- 15	3	—	3
- 20	1	—	1
- 25	2	—	2
Total,	11	2	13

DIAGNOSIS.—12 of the patients were found to be suffering from extra-pulmonary tuberculous disease, and 1 patient was found to be suffering from Perthes' disease of the hip.

It will be noticed that, when active treatment such as operation became necessary, the patients had to be transferred to Stonehouse for that purpose.



No.	Sex.	Age.	Condition on Admission.	Treatment.	Result.	Residence in Days.	Remarks.
1	M	21	Tb. ilium with sinuses and sequestra,	Recumbency,	Improved,	215	Transferred to Stonehouse for operation.
2	M.	3 $\frac{9}{12}$	Right hip with flexion and adduction,	Extension, &c.,	Healed,	541	Movements almost normal.
3	M.	21	Right hip with multiple sinuses,	Incision. Extension.	I.S.Q.,	362	Transferred to Stonehouse for operation.
4	M.	12	Left knee. Ankylosed and flexed.	Extension. Walking calipersplint.	Well,	25	Deformity corrected. Ankylosis.
5	M.	14	Left knee. Mainly synovial. Flexion,	Extension. Walking caliper,	Well,	385	Movements almost normal.
6	M.	5	Left knee with flexion deformity,	Extension. Walking caliper,	Improved,	340	Transferred to Motherwell with scarlet. Since re-admitted.
7	M.	16	Left knee with multiple sinuses,	Incision. Dressing Extension.	I.S.Q.,	240	Transferred to Stonehouse for operation.
8	M.	5	Left knee with deformity, ...	Extension. Walking caliper,	Well,	92	Movement through 45°.

9	F.	7	Right shoulder with abscess and limitation of movement,	Aspiration. Splintage,	Well,	174	Some limitation of movement.
10	M.	2	Right elbow with sinus. Left tibia with sinus,	Dressing. Splintage,	Well,	505	Elbow healed but some limitation of movement. Tibia healed.
11	M.	6	Tb. scaphoid with sinus, ...	Scraping, &c.	Well,	323	Normal.
12	F.	4	Tb. dactylitis, ...	Dressings, &c.	Well,	382	Finger deformed.
13	M.	12	Perthes' disease, left hip, ...	Extension and rest,	Well,	510	Completely recovered.

# COUNTY SANATORIUM, UPPERTOWN, LONGRIGGEND.

*Physician-Superintendent*—J. M'CALLUM LANG, M.D., D.P.H.

*Visiting Physician*—RICHARD RAE, M.B., Ch.B., D.P.H.

*Matron*—Miss MORE.

## ADMISSIONS AND DISCHARGES.

In Residence 1st January.	Admitted during year.	Discharged during year.	Died during year.	In Residence 31st December.
46	131	*119	17	41
		136		

\* Eleven patients were re-admitted and completed two periods of residence during the year, making a net total of 108 discharged and 17 died, and the subsequent statistics deal with the total of 125.

PLACE OF RESIDENCE.—Of the total cases discharged, 124 resided in the Middle Ward District, the place of residence according to parish being as follows :—

Avondale, - - -	1	Cambusnethan, - - -	5
Glassford, - - -	1	Dalserf, - - -	8
East Kilbride, - - -	3	Hamilton, - - -	2
Stonehouse, - - -	2	New Monkland, - - -	14
Blantyre, - - -	5	Old Monkland, - - -	22
Bothwell, - - -	42	Shotts, - - -	10
Cambuslang, - - -	8		
		Total, - - -	123
Shettleston (Lower Ward), - - -	-		1
Slamannan (Stirlingshire), - - -	-		1
			125

AGE AND SEX.—In the following table the cases are shown classified according to age and sex, and according to age-groups for both sexes,

each age-group also containing the pulmonary, non-pulmonary, tuberculised, and non-tuberculous cases referable to it:—

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age-Groups.	Pulm.	Non- Pulm.	Tuber- culised.	Non- Tuber- culous	
- 5	10	6	16	Pre-School, - -	—	5	4	7	
- 10	6	14	20	School Age, - -	{	6	8	7	
- 15	6	12	18			3	8	6	1
- 20	4	11	15	Adolescent, - -	{	11	4	—	
- 25	2	16	18			13	3	2	—
- 30	2	8	10	Early Maturity, -	{	8	2	—	
- 35	1	6	7			4	—	—	3
- 40	3	2	5			5	—	—	—
- 45	1	5	6			3	1	—	1
- 50	2	2	4	Late Maturity, -	{	2	—	2	
- 55	2	—	2			2	—	—	—
- 60	3	—	3			1	—	—	2
- 65	1	—	1			1	—	—	—
70	—	—	—			—	—	—	
	43	82	125			53	29	20	23

#### DURATION OF RESIDENCE.

##### RESIDENCE IN DAYS.

	Maximum.	Minimum.	Average.
Pulmonary, - -	1,003	5	175
Non-Pulmonary, - -	400	6	117
Tuberculised, - -	286	15	108
Non-Tuberculous, - -	582	17	108

##### RESIDENCE IN MONTHS.

	0-1	1-3	-6	-9	-12	-18	-24	Over.
Pulmonary, - -	8	12	11	13	5	2	1	1
Non-Pulmonary, - -	9	9	4	3	—	4	—	—
Tuberculised, - -	2	10	3	5	2	—	—	—
Non-Tuberculous, - -	2	11	6	3	—	—	1	—

The non-tuberculous patient who was in residence for 582 days is worthy of comment. He was a man of 56 years who presented well-marked signs of chronic bronchitis and pulmonary fibrosis on admission. A radiograph showed diffuse uniform mottling of both lungs, and a provisional diagnosis of occupational fibrosis was made. Shortly after admission his spit was reported positive, and although it was persistently negative thereafter he was regarded as a case of chronic pulmonary tuberculosis. He reacted very briskly to tuberculin. His general condition improved greatly, and apart from attacks of bronchitis he kept well for nine months. Quite suddenly he contracted pleurisy and began to run a temperature. Signs of

consolidation and later of cavitation appeared at the base of the left lung. After some months certain features of the case suggested a diagnosis of pulmonary abscess, and he was transferred to Motherwell Hospital for X-ray examination with lipiodol, and if necessary, for surgical treatment. He died there and the post mortem examination showed a solidified left lung with many small abscesses, probably due to dilated bronchi. There was no evidence of tuberculosis.

TRANSFERS TO OTHER INSTITUTIONS.—After observation or at the end of their period of sanatorium treatment, 24 cases were transferred to other institutions, as follows :—

Motherwell,	-	-	-	4	2 Measles, 2 for Lipiodol.
Hairmyres,	-	-	-	14	
Stonehouse,	-	-	-	3	
Dalserf,	-	-	-	2	
Bellshill,	-	-	-	1	For confinement.

### Pulmonary Tuberculosis.

(53 CASES.)

DURATION OF ILLNESS.—The duration of illness recorded at the time of admission, and stated in monthly periods, was as follows :—

Classification on Admission.	1-3	3-6	6-12	12-18	18-24	Over 24	Total.
Group I,	5	4	1	1	—	—	11
Group II,	3	4	2	2	2	8	21
Group III,	1	7	3	5	—	5	21

DURATION OF ILLNESS OF FATAL CASES.—14 cases of pulmonary tuberculosis died, and the duration of illness from the date of onset to that of death was thus recorded in monthly periods :—

1-3	3-6	6-9	9-12	12-18	18-24	Over 24
1	1	2	2	3	—	5

GENERAL RESULTS OF TREATMENT.—The general condition of the patients on discharge is shown in the following tabular statement :—

Classification on Admission.		Quiescent.	Improved.	Stat.	Worse.	Died.
Group I,	- -	4	4	2	1	—
Group II,	- -	8	10	2	—	1
Group III,	- -	—	1	3	4	13

SPUTUM EXAMINATIONS.—Bacteriological examinations showed that 80 per cent. of the verified cases had tubercle bacilli in the spit :—

Classification on Admission.	Positive.	Negative.	No Spit.
Group I, - - - -	8	3	—
Group II, - - - -	17	4	—
Group III, - - - -	17	1	3

(Died in 5, 6, and 10 days.)

PULMONARY TUBERCULOSIS IN CHILDREN UNDER 15 (3 cases):—

- (1) A girl of 13, suffering from tuberculous nephritis and tuberculous peritonitis, with extensive pulmonary disease, went home in a dying condition.
- (2) A girl of 13, with definite signs of infiltration of one upper lobe and a characteristic swinging temperature, was taken home at her parents' request after 82 days, with no improvement in the lung condition.
- (3) A girl of 13, with well-marked pulmonary disease and abdominal tuberculosis (onset 6 months before admission) died in 39 days.

SPUTUM NEGATIVE PULMONARY TUBERCULOSIS (11 cases.).—In 8 of these cases the X-ray was positive, and the diagnosis was further supported by the following confirmatory signs :—

Crepitations, ... ..	1
Crepitations, hæmoptysis, and positive spit prior to admission, ... ..	1
Hæmoptysis and positive spit prior to admission, ... ..	1
History of pleurisy, ... ..	3
History of pleurisy and crepitations, ... ..	1
Tuberculous dactylitis, ... ..	1

Of the remaining three cases, all of whom were admitted in a dying condition and died in 5, 6, and 10 days respectively, one had a history of pleurisy and hæmoptysis, one had pleural effusion, and one had a history of pleurisy and died with signs of miliary tuberculosis, which was confirmed post mortem.



## Non-Pulmonary Tuberculosis.

(29 CASES.)

Cases of non-pulmonary tuberculosis requiring only hygienic and nursing treatment were dealt with in the Institution, and those for whom operative interference or special appliances were necessary were transferred to the County Hospitals at Motherwell and Stonehouse.

ABDOMINAL TUBERCULOSIS (18 cases).—Febrile, 9.

*Operation diagnosis with discharging sinus* or rigidity, 3 (one quiescent on dismissal, one improved, one removal by parents after 13 days, condition unchanged).

*Rigidity, distension, and abdominal pain*, 3 (one died in 6 days, one was sent to Hairmyres in quiescent state after 194 days, one was removed by parents after 87 days, condition unchanged).

*Abdominal tumour*, 1 (transferred to Hairmyres much improved after 375 days.)

*Resistance, diarrhœa, and progressive asthenia*, 1. (Died in 7 days.)

*Rigidity, tenderness, and hilus glands*, 1 (left of own accord after 50 days, condition unchanged.)

Non-febrile, 9.—*Operation diagnosis and no signs or symptoms*; dismissed well, 1 case. *Operation diagnosis mass in iliac fossa*, improved, 1. *Operation diagnosis distension and resistance*, transferred to Hairmyres, 1. *Ascites*, 3; all improved. *Large abdominal mass*, 1; removed at parents' request after 24 days, condition unchanged. *Rigidity and tenderness with some distension*, 2; one improved and one quiescent on dismissal.

BONES AND JOINTS (5 cases).—

F.6.—Right shoulder joint; healed scar in right axilla, cold abscess over posterior axillary border; transferred to Dalserf Hospital.

M.17.—Spine affected. Had Albee's operation prior to admission; no deformity nor abscess; spasticity of both legs; transferred to Stonehouse Hospital.

M.27.—Old hip joint disease, with healed scars on admission and dismissal.

F.23.—Left sacro-iliac joint affected; old tubercular pleurisy; general condition good; transferred to the County Orthopædic Hospital.

M.8.—Knee joint; white swelling and limited movement; transferred to Dalsersf Hospital.

GLANDS (5 cases).—One patient had swelling of a sub-maxillary gland with a scrofulous condition of skin on admission; general condition very much improved on dismissal; local lesion quiescent. Four patients had glandular swelling without abscess formation or with old healed scars on admission. One was transferred to Motherwell, one to Stonehouse for excision, and the remaining 2 were discharged much improved in general health.

MENINGITIS (1 case).—No definite physical signs on admission; developed temperature on 20th day, and signs of meningitis appeared; died 10 days later.

### **Tuberculised Children.**

(20 CASES.)

Where children are stated in this report to have been suffering from abdominal tuberculosis, pulmonary tuberculosis, &c., the diagnosis was definitely established and discernible by ordinary clinical methods. The classification "tuberculised" has been reserved for those who gave a positive tuberculin reaction, but did not present localising signs of diagnostic significance. Those patients were admitted with a history of poor general health, either alone or combined with respiratory or abdominal symptoms. Some of them were debilitated and had symptoms suggestive of tuberculosis; others gave one the impression that the positive tuberculin reaction was not indicative of the cause of their illnesses. In many cases it was undoubtedly only a coincidence, but in the meantime all have been classified as "tuberculised." Two adults have been included in this general group—both were notified as suffering from pulmonary tuberculosis. In neither of these could the diagnosis be confirmed, but the patients had some symptoms which made it desirable that they should remain under the observation of the Tuberculosis Officers.

In 6 instances the children were admitted as *notified cases of pulmonary tuberculosis*, and, in addition to the positive tuberculin reaction, the following conditions were found:—Debility, 1; pulmonary fibrosis, 1; tonsils and adenoids, 1; hilus glands, 1; debilitated contact, 1; no apparent disease, 1.

In 6 instances the diagnosis on admission was *abdominal tuberculosis*, and the conditions noted were these:—Debility, &c., 2; infantilism, 1; dietetic diarrhœa, 1; no apparent disease, 2.

One child, notified as *Bronchiectasis-tuberculised*, was transferred to Motherwell for X-ray examination after lipiodol injection.

Two children were admitted as *Hilus tuberculosis*. Both had definite X-ray evidence of enlarged hilus glands.

In two instances the diagnosis on admission was *tuberculous keratitis*. Both children were debilitated; there was no apparent ocular disease while in hospital.

One child was admitted as a case of *tuberculous empyema* and showed well-marked pulmonary fibrosis following a neglected pyogenic empyema.

### Non-Tuberculous Diseases.

(23 CASES.)

In 23 cases—that is, 18·4 per cent. of those under review—the diagnosis of tuberculosis was altered, as follows:—

ADULTS (8).—*Notified pulmonary tuberculosis*.—Pulmonary fibrosis, 3; bronchiectasis, 2; pulmonary fibrosis, aneurysm, 1; debility, 2.

CHILDREN (15).—*Notified pulmonary tuberculosis*.—Pulmonary fibrosis, 1; recurrent bronchitis, 1; naso-pharyngitis, 1; debility, adenoids, 1.

*Notified abdominal tuberculosis*.—Debility, 4; rickets, 2; debility, hernia, 1; dilatation of colon, 1; convalescent typhoid fever, 1; chronic appendicitis, 1.

*Notified pulmonary and abdominal tuberculosis*.—Pleuro-pulmonary fibrosis, 1.

The altered diagnosis in the case of the children was supported by repeated negative reactions to tuberculin applied to each child by the percutaneous, cutaneous, and subcutaneous methods. The ages of the children were:—1-5 years, 7; 5-10 years, 7; 10-15 years, 1.

## SPECIAL EXAMINATIONS AND TREATMENT.

### ARTIFICIAL PNEUMOTHORAX.

Treatment by the induction of artificial pneumothorax was begun during the year. Patients were transferred to Motherwell Hospital for the initial operation and for re-fills. The arrangement is the best possible under the circumstances as Longriggend has no resident medical staff and no X-ray apparatus. It is a cumbersome procedure, however, and the patients do not like it.

Four of the cases discharged during 1930 received this form of treatment—one was very much improved on dismissal, one was *in statu quo*, one was worse, and one died. The poor results are no doubt due to the operation having been performed as a last resort in three cases. Clinically and radiologically the disease was almost entirely confined to one lung, but the lesion was massive and the toxæmia profound. There is no difficulty in justifying the treatment so far as these cases are individually concerned, but the results made an unfavourable impression on the other patients, and, temporarily at least, has brought the operation into disrepute at Longriggend. On the other hand, the parents of one patient requested that artificial pneumothorax be performed on their daughter, even without hope of effecting an improvement in her condition, and it may be that a wider experience of the operation will render it more acceptable to those concerned.

The patient who benefited by treatment was discharged at her own request after only 6 months' residence. She was a girl of 17 from an average working-class home, and she promised to continue treatment after leaving the Sanatorium. She had experienced a considerable improvement in her condition and was carefully warned of the danger of relapse. Her three or four subsequent visits to Motherwell Hospital were made only as a result of careful following up by the Tuberculosis Officer and nurse, and finally she refused to continue treatment for no better reason apparently than that "she could not be bothered."

In the meantime this form of treatment would become more acceptable if the entire course could be carried out in the same Institution and if a careful discrimination were made in selecting only very favourable cases. Even so, when we discard those who are unsuitable on physical and temperamental grounds, the proportion likely to benefit is small.

ARTIFICIAL LIGHT TREATMENT.—Treatment with the atmospheric mercury vapour lamp was carried on throughout the year and the results supported the opinions expressed in previous reports.

X-RAY EXAMINATIONS.—95 patients were X-rayed at the County Hospital, Motherwell, the radiographs being sent to the Sanatorium and read in conjunction with the clinical picture.

EAR, NOSE, AND THROAT SPECIALIST.—One case was referred to the consulting laryngologist, and the following condition was diagnosed—tonsils and adenoids. (Tonsillectomy performed.)

DENTAL TREATMENT.—The visiting dentist made 4 visits and treated 35 patients, the total number of extractions being 137, and scalings, 1.

## ADMINISTRATION.

BUILDINGS AND GROUNDS.—The kitchen arrangements and equipment were completely overhauled and modernised, and cooking is now carried out most successfully by electricity and steam.

ACCOMMODATION.—The accommodation was unchanged and consisted of 31 beds and 14 cots allocated as follows:—Adult males, 9; adult females (open cases), 19; adult females (closed cases) and juvenile females, 13; cots, 14.

STAFF.—The *Medical Staff* of 2 is non-resident. The *Nursing Staff* comprises the matron, 2 general trained sisters, 4 staff nurses, and 4 probationers. *Domestic Staff*—1 cook, 3 laundry maids, and 7 maids. *Outdoor Staff*—1 engineer attendant (resident) and 2 assistant gardener-firemen (1 resident).

## HAIRMYRES COLONY.

### REPORT BY THE PHYSICIAN-SUPERINTENDENT

JAMES JOHNSTONE, M.B., CH.B., D.P.H.

FOR THE YEAR 1930.

#### PATIENTS TREATED.

The number of patients under treatment during the course of the year is shown in the following tabular statement:—

In Residence 1st January.	Admitted During Year.	Discharged During Year.	In Residence 31st December.
231	253	263	221

#### PATIENTS CLASSIFIED ACCORDING TO PLACE OF RESIDENCE.

##### (a) *County of Lanark.*

Avondale, - - - - 1	Hamilton, - - - - 3
Blantyre, - - - - 15	East Kilbride, - - - - 3
Bothwell, - - - - 96	New Monkland, - - - - 10
Cambuslang, - - - - 17	Old Monkland, - - - - 12
Cambusnethan, - - - - 7	Shotts, - - - - 36
Dalserf, - - - - 5	Stonehouse, - - - - 1
Dalziel, - - - - 5	
	Total, - — 211

##### (b) *Burghs in County.*

Hamilton, - - - - 17	Rutherglen, - - - - 3
Motherwell, - - - - 1	
	Total, - — 21

##### (c) *Outwith the County.*

Ayrshire, - - - - 5	Dunbartonshire, - - - - 7
Berwickshire, - - - - 1	East Lothian, - - - - 2
City of Glasgow, - - - - 3	Renfrewshire, - - - - 13
	Total, - — 31

#### NATURE OF DISEASE.

Of the 263 patients discharged during the year under consideration, 243 proved to be tuberculous, in 92 cases the disease assuming the pulmonary form, while in 124 it was non-pulmonary, and 27 were classified as tuberculised. The diseases affecting 15 non-tuberculous cases were as follows:—Asthma, 1; bronchiectasis, 5; bronchitis with emphysema, 2; cardiac disease, 1; enteroptosis, 1; mitral stenosis, 1; pulmonary fibrosis, 4. In the remaining 5 cases, no tuberculous lesion was detected.



In the statistics which follow, only 243 patients—discharged during the year—who proved to be tuberculous are referred to.

## SOCIAL CONDITIONS.

	1 Apt.	2 Apts.	3 Apts.	4 Apts.	5 and over.	Total.
Men, - -	21	52	23	5	—	101
Women, - -	2	13	1	—	—	16
Boys, - -	17	29	12	—	—	58
Girls, - -	11	33	19	3	2	68
Totals, -	51	127	55	8	2	243

## OCCUPATIONS.

Miners, - - - -	38	Constable, - - - -	1
Artisans, - - - -	16	Locomotive Fireman, - - - -	1
Labourers, - - - -	14	Lithographer, - - - -	1
Farm Worker, - - - -	3	Painter, - - - -	1
Butchers, - - - -	2	Railway Signalman, - - - -	1
Warehousemen, - - - -	2	Soldier, - - - -	1
Asylum Attendant, - - - -	1	Tramway Inspector, - - - -	1
Bus Conductor, - - - -	1	Traveller, - - - -	1
Cement Worker, - - - -	1	Weaver, - - - -	1
Clerk, - - - -	1		

## PULMONARY TUBERCULOSIS.

	ADMISSIONS.			DISCHARGES.			
	Direct.	By Transfer.	Total.	Direct.	By Transfer.	Death.	Total.
Men, - - - -	53	16	69	63	4	2	69
Women, - - - -	3	6	9	9	—	—	9
Boys, - - - -	4	1	5	5	—	—	5
Girls, - - - -	8	1	9	9	—	—	9
Totals, - - - -	68	24	92	86	4	2	92

## REASONS FOR DISCHARGE.

	Stage I.	Stage II.	Stage III.	Totals.
Period of Treatment Completed, - -	21	9	2	32
Against Medical Advice, - - - -	14	6	6	26
Domestic and Financial, - - - -	6	7	5	18
Refused Treatment, - - - -	1	—	—	1
Misconduct, - - - -	1	4	4	9
Transferred to other Institutions, -	—	1	3	4
Died, - - - -	—	—	2	2
Totals, - - - -	43	27	22	92

## AGE AND SEX DISTRIBUTION.

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age Groups.
Under 5, -	—	—	—	Pre-School Age.
„ 10, - -	2	5	7	School Age.
„ 15, - -	4	4	8	
„ 20, - -	14	2	16	Adolescence.
„ 25, - -	15	3	18	
„ 30, - -	11	3	14	Early Maturity.
„ 35, - -	8	1	9	
„ 40, - -	7	—	7	
„ 45, - -	5	—	5	
„ 50, - -	4	—	4	Late Maturity.
„ 55, - -	2	—	2	
„ 70, - -	2	—	2	Post Maturity.
Totals, - -	74	18	92	

## DURATION OF ILLNESS.

Months.				Years.		
Duration, -	1-3	3-6	6-12	1-2	2-4	Over 4
Cases, -	4	8	11	11	12	46

50 per cent. of the cases gave a history of over four years' illness. This figure is too high, and is certainly a handicap to treatment. One should always keep in mind the well-known adage, "Early treatment, early cure."

## INITIAL MANIFESTATIONS OF ILLNESS.

Cough and Spit, - - -	36	Hæmoptysis, - - -	2
Pleurisy, - - -	16	Measles, - - -	2
Pneumonia, - - -	11	Adenitis, - - -	1
Lassitude, - - -	9	Enteritis, - - -	1
Influenza, - - -	6	Hip Joint Disease, - -	1
Debility, - - -	4	Night Sweats, - - -	1
Bronchitis, - - -	2		

## RESULTS OF TREATMENT.

The classification adopted is that of Turban-Gerhardt.

Stage of Disease.	Number of Patients.	T.B. Present.	Quiescent.	Improved.	No Change.	Worse.	Died.
I, - - -	43	2	23	18	2	—	—
II, - - -	27	6	7	16	4	—	—
III, - - -	22	15	1	13	5	1	2
Totals, - -	92	23	31	47	11	1	2

53 per cent. of the cases in Stage I were discharged with the disease "quiescent," an increase on last year's figures. The majority of these cases were restored to full working capacity and able to take their place as normal citizens. As one would expect, the results are not so satisfactory in the more advanced stages of the disease. This is another factor in favour of early treatment. But even in the advanced stages, almost 60 per cent. were discharged with their condition improved. These results, one hopes, will help to brighten the outlook on the problem of tuberculosis.

COMPLICATIONS.—The undernoted table shows complications present in the different stages of the disease. This is only retained for official purposes; strictly speaking, they are manifestations of the disease.

	Stage I.	Stage II.	Stage III.	Totals
Acniform eruption, - - -	1	—	—	1
Alopecia areata, - - - -	—	1	—	1
Blepharitis, - - - - -	1	—	—	1
Fistula in ano, - - - - -	—	—	1	1
Laryngitis, - - - - -	—	1	—	1
Lupus, - - - - -	—	—	1	1
Scoliosis of Spine, - - -	—	1	—	1
Totals, -	2	3	2	7

#### DURATION OF RESIDENCE.

	Under 4 weeks.	4 and under 13 weeks.	13 and under 26 weeks.	26 and under 52 weeks.	52 weeks and over.	Average duration of stay in days.
Stage I, - -	7	8	4	10	14	297
Stage II, - -	2	9	2	7	7	291
Stage III, - -	2	—	7	8	5	337
Totals, -	11	17	13	25	26	

Compared with last year, there is a marked reduction in the number of cases with a residence of under four weeks, otherwise the figures are much the same.

## DURATION OF RESIDENCE IN DAYS.

		Average.	Maximum.	Minimum.
Men,	- -	319	1,895	2
Women,	-	210	705	10
Boys,	- -	248	433	52
Girls,	- -	319	757	8

## FAMILY HISTORY.

		Number of Cases Discharged.	Positive History.			Percentage
			Stage I.	Stage II.	Stage III.	
Men,	- - -	69	5	6	6	25
Women,	- - -	9	4	2	—	67
Boys,	- - -	5	4	—	—	80
Girls,	- - -	9	2	—	1	33
Totals,	- -	92	15	8	7	33

Owing to the small percentage of cases with a positive family history, it is difficult to draw any conclusions. In adults, it is difficult to elicit a family history, the source probably having been removed many years ago. Human infection is the great problem. The grandparent suffering from so-called bronchitis should be viewed with grave suspicion.

## NON-PULMONARY TUBERCULOSIS.

124 patients received treatment for the non-pulmonary form of tuberculosis, again outnumbering the pulmonary cases.

## AGE AND SEX DISTRIBUTION.

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age Groups.
Under 5,	- - 1	—	1	Pre-School Age.
„ 10,	- - 25	27	52	School Age.
„ 15,	- - 15	18	33	
„ 20,	- - 13	3	16	Adolescence.
„ 25,	- - 9	3	12	
„ 30,	- - 3	1	4	Early Maturity.
„ 35,	- - 2	—	2	
„ 40,	- - 1	—	1	
„ 45,	- - —	—	—	
„ 50,	- - 3	—	3	Late Maturity.
„ 55,	- - —	—	—	
„ 70,	- - —	—	—	Post Maturity.
Totals,	- 72	52	124	

The majority of the cases, 68 per cent., were between the ages of 5 and 15.

The following table shows results of treatment according to the nature of the disease :—

	Quiescent.	Imp.	No Change.	Worse.	Died.	Total.
Peripheral Glands, - -	30	19	1	—	—	50
Tracheo-bronchial Glands,	11	8	1	—	—	20
Abdomen, - - - -	12	7	—	—	—	19
Skin, - - - -	5	3	—	—	—	8
Bone, - - - -	5	—	1	—	1	7
Spine, - - - -	3	—	—	1	—	4
Other Organs, - - -	7	6	3	—	—	16
Totals, -	73	43	6	1	1	124

34 per cent. of the peripheral gland cases had discharging sinuses before or during treatment.

This table indicates that the results of treatment in non-pulmonary tuberculosis were extremely satisfactory, 93 per cent. of the cases being discharged either “quiescent” or “improved.”

#### DURATION OF RESIDENCE.

	Under 4 Weeks.	4 Weeks and under 13.	13 Weeks and under 26.	26 Weeks and under 52.	52 Weeks and over.	Average duration of stay in days.
Peripheral Glands, - -	3	8	4	15	20	319
Tracheo-bronchial Glands, -	2	2	3	7	6	306
Abdomen, - - - -	1	3	1	9	5	287
Skin, - - - -	—	—	1	4	3	420
Bone, - - - -	—	1	—	2	4	581
Spine, - - - -	—	—	1	1	2	346
Other Organs, - - -	3	1	2	4	6	472
Totals, - -	9	15	12	42	46	

#### DURATION OF RESIDENCE IN DAYS.

	Average.	Maximum.	Minimum.
Men, - - - -	500	2,383	18
Women, - - - -	337	548	105
Boys, - - - -	351	1,207	4
Girls, - - - -	254	670	11

One has to record a further increase in the number of patients with a residence of over 26 weeks, emphasising the importance of prolonged treatment to obtain permanent results.

## FAMILY HISTORY.

		Number of Cases Discharged.	Positive.	Percentage
Men,	- - - -	32	9	28
Women,	- - - -	7	2	29
Boys,	- - - -	40	10	25
Girls,	- - - -	45	12	27
Totals,	-	124	33	27

## TUBERCULISED.

This year, owing to the increase in the number of tuberculised children admitted, it has been thought advisable to have a separate chapter for these cases. One is very pleased to record this increase as it is certainly an important step in the Tuberculosis Scheme. In a recent lecture, Sir Robert Philip stated: "Infection is contracted for the most part in childhood. The tuberculosis scheme, as usually developed, tends to be lop-sided, heavily weighted in respect of pronounced lesions and but little occupied with the possibilities and consequences of early infection." Concentration on the child opens up great possibilities. The Colony scheme of concurrent treatment and education in an open-air school seems to be on the right lines. Let us hope it will be fully developed.

27 children classified as "tuberculised" received treatment during the year. These cases had no marked lesion but gave a positive tuberculin reaction indicating tuberculous infection. The results of treatment were very satisfactory, only one case showing no improvement.

## AGE AND SEX DISTRIBUTION.

	Males.	Females.	Both Sexes.	Age Groups.
Under 5,	- - -	-	-	Pre-School Age.
„ 10,	- - 8	2	10	School Age.
„ 15,	- - 5	12	17	
Totals, -	13	14	27	

## FAMILY HISTORY.

		Number of Cases Discharged.	Positive.	Percentage.
Boys,	- - - -	13	6	46
Girls,	- - - -	14	6	43
Totals,	- -	27	12	44



## PENSIONERS.

Included in the patients discharged during the year under consideration were 6 pensioners, an increase of 1 on the previous year. Of that number, all 6 were affected with the pulmonary type of the disease, 1 being in Stage I, 2 in Stage II, and 3 in Stage III. As one would expect, there has been, within recent years, a marked reduction in the number of cases recommended for treatment by the Ministry of Pensions. The majority of the cases received concurrent treatment and training.

## GRADUATED LABOUR.

Of the 115 males discharged during the period under review, 81 registered for training. 18 were physically unfit for systematic training, but were engaged in occupational therapy, and 16 were unfit to work without prejudice to their condition.

## NECESSITOUS CASES.

During the year, 88 necessitous cases—a decrease of 30 on last year—were supplied with clothing and boots, as follows:—

		Cases	Value
County of Lanark }	Institution, - - - -	49	£147 1 5
	Public Assistance Committee,	12	30 9 3
Other Authorities, - - - -		27	97 8 7

The necessitous circumstances of all cases were verified by the respective Medical Officers of Health.

It is pleasing to record a change in the procedure regarding the supply of clothing to County necessitous cases. Previously, these were all a charge against the Institution, a most unsatisfactory state of affairs. Now, if a patient has been receiving assistance from the Public Assistance Committee prior to admission to the Colony, and requires clothing while undergoing treatment, then the cost of the clothing will be a charge against that Committee.

## WASSERMANN TEST.

A specimen of blood for the Wassermann test was taken from all adult patients on admission, with the undernoted results:—

Positive, 1; strongly positive, 3. Total, 4.

This was equal to 3·3 per cent. of the adult admissions.

## DENTAL TREATMENT.

During the year, 126 adults and 141 children received treatment, as follows:—Extractions, 507; fillings, 65; scalings, 42. 1 patient was fitted with a complete set of artificial dentures. It is to be regretted that it has been decided in future not to supply dentures. This is a severe handicap to the patients who, after having all their septic teeth extracted, are unable to masticate their food properly with a consequent deterioration in health.

The number of extractions remains much the same as last year, but there has been an increase in the figures for conservative treatment (fillings and scalings). Our dental surgeon, Mr. Hutchison, visited the Colony once a fortnight.

## X-RAYS.

Our X-ray apparatus gave good service during the year. The Metalix air-cooled radiator tube proved very efficient. The X-rays are of incalculable value in the diagnosis of abnormal chest conditions. This is particularly marked in Hilus Tuberculosis. However, it requires prolonged experience to know the difference between the normal and abnormal. This year, further work was done on that difficult problem, pulmonary fibrosis, a fairly common lesion amongst the mining classes. 20 suspected cases received Lipiodol injections. A fairly characteristic diagnostic picture was evolved. The subject is still being further investigated. The value of stereoscopic films was again emphasised and all lung cases were photographed in this manner. This is the routine practice in Canada and U.S.A.

The work done in this department was as follows:—496 patients were X-rayed during the year, the number of films used being 756. The number of chest examinations was 459. Other parts examined were as follows:—Humerus, 11; knee, 5; spine, 4; hip, 4; jaw, 3; femur, 3; head, 2; finger, 2; pelvis, 1; wrist, 1; hand, 1. Rectal barium injections were given in 19 cases of suspected abdominal tuberculosis.

The X-ray apparatus is not powerful enough for instantaneous photography, especially for tele-stereoscopy, which is essential if one wishes to obtain the best results in chest radiography. We are also very much handicapped by lack of space. The question of a more powerful apparatus and better accommodation should be considered in the near future.

## ACTINOTHERAPY.

The ultra-violet rays, both natural and artificial, were again extensively used for the treatment of the non-pulmonary forms of tuberculosis.

HELIOOTHERAPY.—This treatment, for the ninth year in succession, was applied during the summer season and, although only possible to a limited extent owing to our northern climate, it certainly proved to be of considerable benefit to the tuberculous children, all the cases reacting well. The treatment commenced on 30th April, and terminated on 28th August. As stated before, it is certainly the best and cheapest method of obtaining the health-giving ultra-violet rays.

ARTIFICIAL LIGHT.—Our Light Department is well equipped for all forms of light treatment, the apparatus consisting of carbon arc lamps (long and short flame), quartz mercury vapour lamps (atmospheric and air-cooled). The last type of lamp, a K.B.B. Uviator, was of great value in local treatment of lupus and glands. In the short flame carbon arc lamps, we continued to use Polar white flame positive carbons and solid plain negative carbons. In the long flame carbon arcs, Watson's carbons, Type B, were used. The long flame carbon arc lamps were used more for general tonic purposes, particularly in the treatment of debilitated children. The short flame arcs seemed to have a more marked effect in definite tuberculous lesions.

All cases, regardless of the site of the lesion, received general light baths with, in addition, local applications if necessary, the reason being that tuberculosis is a general disease involving the whole system and must be treated accordingly.

The average number of treatments given per month was 945, an increase of 66 on last year. The total number given by the different lamps was as follows:—Short-flame arc, 4,286; long-flame arc, 4,335; mercury vapour, 1,288; Uviator, 1,428.

Lesion.	Name.	Patient. Age.	Sex.	Duration of Illness.	Duration of Treatment.	*Lamp.	Result.
Glands.	J. S.	8	M.	2 years.	2 years.	{ L.F. S.F. U.V. M.V.	Cured.
	W. M'C.	14	M.	1½ "	7 weeks.	{ L.F. U.V.	Improved.
	J. W.	17	M.	2 "	5 months.	{ L.F. S.F.	Cured.
	M. O'R.	9	F.	7 "	5 weeks.	{ L.F. U.V.	Improved.
	J. C.	10	M.	5 months.	4 months.	{ L.F. S.F. U.V.	Improved.
	T. M.	9	M.	6 "	5 "	{ S.F.	Improved.
	P. S.	7	M.	5 "	7½ "	{ L.F. U.V. M.V.	Cured.
	T. R.	19	M.	1 year.	15 "	{ L.F. U.V. M.V.	Cured.
	A. S.	12	M.	2¼ years.	18 weeks.	{ L.F. U.V. S.F.	Cured.
	K. L.	23	F.	10 "	13 months.	{ U.V. M.V.	Cured.
	B. G.	9	M.	6 "	5 "	{ L.F. S.F.	Cured.
	G. A.	6	M.	5 months.	8 "	{ S.F. M.V.	Cured.
	S. M.	13	F.	10 years	6½ months.	{ S.F. M.V.	Cured.
	E. H.	6½	F.	10 months.	7 months.	{ L.F. U.V.	Cured.
	J. M.	21	M.	5 years.	14 "	{ L.F. M.V.	Improved.
Glands (Discharging Sinus).	J. V.	19	M.	10 "	13 "	{ L.F. U.V. M.V.	Cured.
	R. R.	17	M.	12 "	1¼ years.	{ L.F. U.V. M.V.	Cured.
	R. W.	5½	M.	18 months.	7 months.	{ S.F. M.V.	Cured.
	G. B.	30	M.	15 years.	7 "	{ S.F. R.H. M.V.	I.S.Q.
	R. P.	39	M.	8 "	14 "	{ L.F. M.V.	Improved.
	G. G.	15	M.	7 "	22 months.	{ S.F. U.V. M.V.	I.S.Q.
Bone.	D. S.	22	M.	2¼ "	3 weeks.	{ S.F.	Cured.
	J. S.	26	M.	12 "	1 month.	{ S.F.	Improved.
	H. A.	18	M.	1 year.	1¾ years.	{ S.F. R.H.	Cured.
Lupus Erythematosus.	J. M'E.	34	M.	2 years.	11 months.	{ U.V. M.V.	I.S.Q.
Catarrhal Lupus.	S. K.	25	F.	16 "	5 "	{ S.F.	Cured.
	A. M'C.	6	M.	5 "	9 "	{ S.F.	Cured.
	E. F.	17	F.	14 "	1½ years.	{ L.F. U.V.	Cured.
Fibroid Lupus.	L. C.	18	F.	15½ "	5½ months.	{ S.F. U.V.	Cured.
	J. W.	26	F.	21½ "	4 "	{ S.F. U.V.	Improved.
	J. Y.	16	M.	2 "	11 "	{ L.F. U.V.	Cured.

Lesion.	Patient. Name.	Age.	Sex.	Duration of Illness.	Duration of Treatment.	*Lamp.	Result.
Abdomen.	A. T.	12	F.	11 years.	4 months.	S.F.	Cured.
	R. C.	23	M.	15 months.	11 "	S.F.	Cured.
	A. S.	5½	M.	22 "	9½ "	{ L.F. M.V.	Cured.
	M. M'G.	22	F.	4½ years.	7 "	S.F.	Cured.
	A. L.	10	M.	8 "	9 "	S.F.	Cured.
	A. B.	12	M.	6 "	4 "	{ L.F. S.F. M.V.	Cured.
	R. M'B.	18	M.	4 "	17 "	S.F.	I.S.Q.
	W. G.	11	M.	9 months.	10 "	{ L.F. S.F.	Cured.
	P.B.	4	M.	3 years.	11 days.	S.F.	Improved.
	A. B.	12	M.	6 "	3 months.	{ L.F. S.F. M.V.	Improved.
Debility.	A. D.	8	M.	Few weeks.	7 "	{ L.F. M.V.	Cured.
Septic Finger.	C. H.	16	M.	1 week.	9 days.	{ S.F. M.V.	Cured.
	F. D.	7	M.	2 months.	3 months.	{ L.F. M.V.	Cured.
Dermatitis.	N.K.	31	F.	2 years.	6 "	M.V.	Improved.
Alopecia Areata.	M. F.	18	M.	2 "	3 months.	M.V.	Improved.
Ringworm.	J. D.	7½	M.		5 treatments.	M.V.	Cured.
	H. T.	10	M.		17 "	M.V.	Cured.
Kidney.	T. M'L	34	M.	17 years.	5 months.	S.F.	I.S.Q.
Salivary Fistula.	J. R.	6	F.	2¼ "	11 "	{ S.F. U.V. M.V.	I.S.Q.
Cold Abscess.	M. S.	6	F.	1 week.	5 "	{ S.F. M.V.	Cured.

\* S.F.—Short Flame.

L.F.—Long Flame.

M.V.—Mercury Vapour.

U.V.—Uviator.

At the end of the year, 20 males and 11 females were still undergoing treatment.

OUT-PATIENTS.—The following table shows details of out-patients treated during the year. At the end of the year, 2 males and 8 females were still undergoing treatment:—

Lesion.	Patient. Name.	Age.	Sex.	Duration of Illness.	Duration of Treatment.	*Lamp.	Result.
General Debility.	B. S.	14	F.	4 months.	14 months.	{ L.F. M.V.	Cured.
	S. J.	12	M.	2 years.	22 "	{ L.F. M.V.	Cured.
Abscess of Abdominal Wall.	B. E.	15	F.	2 months.	15 "	M.V.	Cured.
Glands (Discharging Sinus).	M. W.	16	F.	1 month.	7 "	M.V.	Cured.
Glands.	I. W.	13	M.	15 months.	7 "	M.V.	Improved.
Fibroid Lupus.	D. V.	—	M.	16 years.	10 "	{ L.F. U.V.	Cured.

Analysing the results, we find that 63 per cent. of the cases were cured, a very satisfactory state of affairs, especially when we consider how chronic the majority of the cases were. One would have thought that, by this time, the value of early treatment in tuberculosis had been fully recognised. In spite of this, we received cases with a history of 15 and 16 years' duration. It would almost seem as if every other form of treatment had been applied before making a final appeal to light. This puts a severe strain on actinotherapy and it gives additional pleasure to record such satisfactory results. It should be noted that all the cases treated were of the non-pulmonary type, but only lack of accommodation and equipment prevented a series of pulmonary cases being given a trial.

As in former years, the cases showing the best results were those with catarrhal lupus and glands, particularly, in the case of glands, those with discharging sinuses. Comparing the results of dispensary and sanatorium treatment, one finds that the results are better in a sanatorium where there is, in addition, good hygienic conditions, including fresh air, good food, &c. In other words, to obtain the best results, light treatment should be combined with good hygienic conditions.

The Wood's glass filter was again extensively used in conjunction with the air-cooled mercury vapour lamp for the diagnosis of ringworm.

One would again appeal for better accommodation. Our splendid equipment and excellent results would fully justify this expenditure. At present we are working under great difficulties and the conditions are not by any means hygienic, particularly as regards ventilation and floor space.

**RADIANT HEAT.**—The K.B.B. Gallois Infra-red Radiation Projector Lamp was of great value in the treatment of various painful conditions associated with pulmonary tuberculosis. The undernoted table gives details of the cases treated :—

Lesion	Patient			Number of Treatments	Lamp	Result
	Name	Age	Sex			
Lumbago, -	N. M'H.	24	F.	5	R.H.	Cured.
	A. S.	55	M.	14	R.H.	Improved.
	S. W.	33	F.	5	R.H.	Cured.
	S. T.	32	M.	1	R.H.	Cured.
	J. M.	29	M.	2	R.H.	Cured.
Pleurodynia, -	J. M'K.	56	M.	3	R.H.	Cured.
	J. R.	27	M.	10	R.H.	Cured.
	J. M'R.	32	M.	2	R.H.	Cured.
	J. D.	36	M.	3	R.H.	Cured.
Rheumatism, -	J. G.	39	M.	7	R.H.	Improved.



The undernoted article was recently written for the British Journal of Actinotherapy, and gives our experience in treating one of the conditions associated with pulmonary tuberculosis.

### INFRA-RED RAYS IN THE TREATMENT OF PLEURODYNIA.

The following cases illustrate the possibilities of Infra-red Rays in tuberculous subjects suffering from pleurodynia:—

- S. W., female, aged 32, complained of pain over upper lobe of right lung below clavicle. She had definite involvement of this lung, with slight systemic disturbance.
- J. M'G., male, aged 22, an early case of pulmonary tuberculosis, complained of pain over base of left lung.
- M. J., female, aged 29, with an active lesion at apex of right lung, complained of pain in this region.
- J. S., male, aged 40, a case in Stage II (Turban-Gerhardt), with marked fibrosis at both bases, complained of pain over right lung anteriorly.
- F. S., male, aged 18, an early case, complained of pain at base of left lung.
- R. T., male, aged 47, a case of tuberculosis of cervical glands and skin, complained of pain in right side of chest.

No evidence of pleural friction could be detected in any of the above cases. They all received treatment with a K.B.B. Gallois infra-red radiation projector lamp. This consists of an aluminium housing containing a 1,000-watt filament lamp, with reflector behind. The front of the housing is covered with sheets of manganese glass to cut out the ultra-violet rays. There is a special focussing adjustment for the lamp, and the whole housing is fixed on a stand and capable of being moved in any direction.

The patient was laid on a couch and the affected part exposed. To prevent undue exposure of the surrounding lung to the rays, asbestos sheeting was placed over the chest. A series of sheets was kept with varying sizes of apertures, depending on the extent of the area requiring treatment.

The lamp was focussed on to the part at a distance of about fourteen inches, the exposure consisting of five seconds on and ten seconds off, the total duration being three minutes. Owing to the intensity of the heat, it was found to be impossible to give longer exposures, and only by intermitting the exposures as stated was one able to prolong it for three minutes.

All the cases received daily treatment, and the number of exposures required in each case was as follows:—J. S., 1; M. J., 3; F. S., 12; J. M'G., 13; S. W., 15; R. T., 90. They all, with one exception, responded rapidly to treatment, and so far have shown no recurrence. The period of treatment was between the months of June and December, 1929.

Although this method of treating pleurodynia is not claimed to be a panacea for all cases, it certainly seems to be of some value and is worthy of further development.

#### ARTIFICIAL PNEUMOTHORAX.

Further progress was made with the operation of artificial pneumothorax. Including inductions and refills, altogether 59 injections were given. A certain proportion of cases were unsuitable owing to pleural adhesions. Artificial pneumothorax is best performed in a sanatorium, where the patients can be kept for a prolonged period and where they are under constant supervision in ideal surroundings. An increase in the number of cases for this operation would be welcomed. Towards the end of the year arrangements were made for Mr. Donald Duff, Surgeon, Glasgow, to perform the operation of phrenic evulsion where necessary. Lacking a proper operating theatre, the major operations of thoracoplasty, &c., cannot meantime be considered.

#### BLOOD SEDIMENTATION REACTION.

The blood sedimentation test has again been adopted as part of the routine examination of every adult patient admitted to the Colony. The method used is, as in previous years, that of Westergren, the reading being made at one hour. The test has also been performed at regular intervals of one month on those patients who have shown an abnormally high rate of sedimentation.

The observations of this year further prove the contentions made in previous reports that this test is of undoubted value in considering the prognosis of a patient and in estimating his response to treatment. The results of the test in those cases admitted during the year have been tabulated, the cases being divided into pulmonary and non-pulmonary, and the former into those whose sputum contains the tubercle bacillus and those whose sputum does not. In Columns IV and V of the tables have been noted the number of cases where the sedimentation rate was normal and abnormal respectively, the figures in parenthesis in Column V representing the lowest and the highest readings of the group. A reading of 8 mm. or lower has been considered normal.

In reviewing the tables of pulmonary cases, the variation in the findings in sputum positive and sputum negative cases will again be noted, the latter showing a considerably greater number of normal readings.

In those cases where the test has been performed at regular intervals, it has been found that, generally speaking, those cases who improve clinically under treatment show a steady decrease in their rate of sedimentation, whilst those cases who are steadily losing weight and in other ways failing to progress show a steady increase in their rate of sedimentation. Nevertheless, there are a few cases who, despite every appearance of clinical improvement, fail to show any marked change in their rate of sedimentation. The reason for this is not obvious, but emphasises the value of the test.

The findings in one case are most interesting. Over a period of five months the S.R. steadily fell from 53 to 16, coincident with increase in weight, lessening in amount of sputum, and decrease in moist sounds in chest. The following month the S.R. reading was 54, without any apparent clinical change. This high rate was maintained the following month, but now there was definite loss of weight and increase of sputum. This was followed by a number of hæmoptyses, following which the patient's condition steadily worsened, with a fatal issue. The increase in the S.R. was the first indication of any retrogression on the part of the disease.

TABLE I.

## MALES—PULMONARY WITH POSITIVE SPUTUM.

Stage.	Number of Cases.	Average S.R.	Number of normal S.R.	Number of abnormal S.R.
I.	3	20	2	1 (48)
II.	7	21	1	6 (17-30)
III.	13	34	0	13 (9-93)

TABLE II.

## MALES—PULMONARY WITH NEGATIVE SPUTUM.

Stage.	Number of Cases.	Average S.R.	Number of normal S.R.	Number of abnormal S.R.
I.	18	5	16	2 (15-17)
II.	14	11	9	5 (12-40)
III.	8	9	5	3 (9-21)

TABLE III.

## MALES—NON-PULMONARY.

Lesion.	Number of Cases.	Average S.R.	Normal.	Abnormal.
Cervical Glands, - - -	11	13	8	3
Lupus, - - - - -	4	4.25	4	—
Abdomen, - - - - -	2	7	2	—
Abdomen with cervical and axillary glands and sinuses.	1	75	—	1
Bone (a) quiescent, - - -	4	13	1	3
(b) active, - - - - -	1	90	—	1
Genito-urinary, - - - -	1	77	—	1
Lumbar sinus, - - - - -	1	30	—	1

TABLE IV.

## FEMALES—PULMONARY WITH POSITIVE SPUTUM.

Stage.	Number of Cases.	Average S.R.	Number of normal S.R.	Number of abnormal S.R.
II.	1	76	—	1
III.	3	36	1	2 (46-56)

TABLE V.

## FEMALES—PULMONARY WITH NEGATIVE SPUTUM.

Stage.	Number of Cases.	Average S.R.	Number of normal S.R.	Number of abnormal S.R.
I.	4	10.5	2	2 (13-18)

TABLE VI.

## FEMALES—NON-PULMONARY.

	Number of Cases	Average S.R.
Lupus, - - - - -	4	6
Cervical Glands, - - - -	1	16
Spinal Caries (quiescent) -	1	3

## TUBERCULIN TEST.

There are several methods of employing this test and it is now generally agreed that the intracutaneous method, as devised by Mantoux, is the most satisfactory. Reaction to tuberculin is due to an increased sensitiveness of the tissues to tuberculo-protein and occurs in people infected with tuberculosis, whether the disease be active or quiescent. In the intracutaneous method a definite known quantity of tuberculin is injected into the dermis. Dilutions of tuberculin are made in such strengths that 0.1 c.c. contains 0.01 mgm., 0.1 mgm., and 1 mgm. of tuberculin. An initial injection of 0.01 mgm. is given. If no reaction results, 0.1 mgm. is given and then, if necessary, 1 mgm., the test being considered negative only if there is no reaction to 1 mgm.

The degree of reaction can be measured and it is considered by some investigators that this is of value in estimating the activity of the disease.

113 children resident in the Colony during the year had the intracutaneous test performed. Burroughs Wellcome & Co.'s Old Tuberculin (Human) was used, an all glass 1 c.c. syringe, graduated in 0.1 c.c. being employed with fine small needles. In addition to the injection of 0.1 c.c. of tuberculin solution, a similar volume of normal saline was also injected intracutaneously to act as a control, usually about 2 inches from the area injected with tuberculin solution. The injections were made in the skin of the forearm. Readings were made 48 hours after injection, since the reaction reaches its maximum 24 to 36 hours after injection and remains at its maximum for a further 24 hours.

The degree of reaction was graded, as recommended by Hetherington, M'Phedran, Landie, and Opie, namely :—+ represents an oedema not more than 10 mm. in diameter, ++ an oedema 10-15 mm. in diameter, usually with redness extending beyond the oedema, +++ an extensive oedema extending more than 15 mm. in diameter, and ++++ an extensive oedema more than 15 mm. in diameter with a spot of necrosis in the centre, sometimes associated with malaise and elevation of temperature.

Of the 113 children, all but 8 reacted to 0.01 mgm. tuberculin. Of the 8 who failed to react, 3 left the Colony before a further test was performed, 4 reacted to 0.1 mgm., and 1 did not react until he was given 1 mgm. Thus, all the children who had the complete test gave

a positive reaction which is not unexpected since practically all children admitted to the Colony have either a definite tuberculous lesion or a history of exposure to infection.

In Table I, we have compared the results obtained in those children diagnosed as tuberculised, that is to say, those children who have no gross lesion, with the results obtained in those children who have a gross tuberculous lesion, such as enlargement of cervical or tracheo-bronchial glands. It is interesting to note that the average difference in degree of reaction is very slight, which hardly supports the view that the degree of reaction is related to the activity of the disease. Those cases grouped under pulmonary are mostly cases of bronchiectasis and asthma. There are no sputum positive cases in this group.

In Table II, the reactions have been arranged in accordance with the age of the patients. It is interesting to note that in the earlier years (5-7) the reaction does not appear to be so intense as in the later years (8-10), but that after the age of 10 the reaction appears to again become less marked. This is more clearly seen in Table III, in which the reactions have been tabulated in respect of these three age groups.

TABLE I.

Condition.	Number of cases.	No reaction.	+	++	+++	++++
Tuberculised, -	25	4%	24%	48%	24%	Nil.
Gross lesion, -	77	7.8%	24.7%	40.2%	24.7%	2.6%
Pulmonary, -	11	9%	36.5%	36.5%	18%	Nil.

TABLE II.

Age.	Number of Cases.	No. reaction.	+	++	+++	++++
5 years.	4	1	2	—	1	—
6 „	10	1	2	4	3	—
7 „	13	2	3	5	2	1
8 „	16	—	3	8	5	—
9 „	17	—	2	7	8	—
10 „	13	1	2	6	3	1
11 „	10	1	5	2	2	—
12 „	15	1	2	10	2	—
13 „	7	1	4	1	1	—
14 „	8	—	4	4	—	—

TABLE III.

Age.	Number of Cases.	No. reaction.	+	++	+++	++++
5-7 years.	27	4	7	9	6	1
8-10 „	46	1	7	21	16	1
11-14 „	40	3	15	17	5	—



## TEST MEALS.

During the year, some investigation has been made into the state of the gastric juice in tuberculous patients by the carrying out of a test meal in those patients who made complaint of abdominal symptoms. The test meal used was that recommended by Ryle, namely the ordinary fractional test meal after the ingestion of gruel, specimens being examined for free H.Cl. and total acidity at the commencement of the meal and at quarter-hour intervals thereafter until  $2\frac{1}{2}$  hours had elapsed. 30 patients in all have had the test performed; of these, 15 were pulmonary cases, 8 were cases of abdominal tuberculosis, 3 had some other form of tuberculous lesion, and 4 showed no evidence of tuberculosis.

There were in all 137 cases of pulmonary tuberculosis (male) resident in the Colony during the year; of these, 48 had a positive sputum, 8 of whom complained of dyspepsia (16·6 per cent.), and 89 had a negative sputum, 7 of whom complained of dyspepsia (7·9 per cent.). The commonest symptom was a feeling of fullness after meals; other symptoms were flatulence, loss of appetite, and indefinite epigastric pain.

	Complete achylia.	Low acidity.	Normal.	High acidity.
Sputum+ - - - -	3	2	3	—
Sputum— - - - -	—	2	3	2
Abdominal tuberculosis, -	—	3	4	1
Other forms, - - -	1	—	1	1
TOTAL, -	4	7	11	4

There is a wide range of normality in the amount of free H.Cl. present in the gastric juice, and in the preceding table the cases headed “low acidity” are those in which the free H.Cl. has failed to reach at any time during the meal the equivalent of 20 c.c. N/10 NaOH.

The total number of cases is small but it is interesting to note that where abnormality is present, the tendency is towards hypo-acidity rather than towards hyper-acidity. It is also noteworthy that 16·6 per cent. of sputum positive cases complained of dyspepsia whilst only 7·9 per cent. of sputum negative cases complained, and that the tendency to low acidity is more marked in the former than in the latter.

In the pulmonary cases, the amount of fasting juice present varied from 18 c.cs. to 90 c.cs. This variation is not considered abnormal.

In some cases, bile was present but in no case was blood present nor charcoal (given some eight hours previously), thus showing no great delay in the emptying of the stomach.

In only one of the abdominal cases was there an excessive amount of fasting juice, namely, 255 c.cs. The amount of free H.Cl. was very low in this case, being totally absent except in the specimen taken  $\frac{3}{4}$  hour after the meal. In this case, however, in addition to the abdominal condition, there was extensive enlargement of the cervical, tracheo-bronchial and axillary glands, with numerous discharging sinuses.

The work on Blood Sedimentation Reaction, Tuberculin Test and Test Meals has been done by Dr. A. G. Thomson during the year and shows an excellent record of painstaking clinical research.

### THE OPEN-AIR SCHOOL.

The school continued to be one of the special features of the Colony. The concurrent treatment and education of tuberculous children is an ideal scheme. The approaching tendency of Tuberculosis Schemes to concentrate on the early infected child will give the open-air school its rightful place in the forefront. Let us hope it will hasten the time when all schools used for normal children will be built on the same principles. The success of the school is largely due to the enthusiasm of our three teachers.

The average number of children attending school was 95; maximum, 99; minimum, 89. The school time-table was as follows:—

9 a.m.—12 noon.	Seniors.	Miss Lamont.
9 a.m.—12 noon	Juniors.	Miss Bayne.
9—10.20 a.m.	Higher Infants.	Miss Skinner.
10.20—12 noon.	Lower Infants.	Miss Skinner.
12 noon—2 p.m.	Lunch and Rest Hour.	
2—4 p.m.	Seniors.	Miss Lamont.
2—4 p.m.	Juniors.	Miss Bayne.
2—2.30 p.m.	Higher Infants.	Miss Skinner.
2.30—3 p.m.	Lower Infants.	Miss Skinner.
3—4 p.m.	All Infants.	Miss Skinner.

This year, troops of Girl Guides and Boy Scouts were formed, and the children are very enthusiastic and look forward to the weekly meetings with much pleasure. Our thanks are due to the ladies and gentlemen who supervised the children.

## BUILDINGS AND GROUNDS.

The Colony has accommodation for 250 patients, as follows:—

Pavilion I—Adult Males, - - - - -	84
Pavilion II—Adult Males, - - - - -	46
Boys, - - - - -	33
	79
Pavilion III—Adult Females, - - - - -	9
Children, - - - - -	61
	70
Observation Block—Children, - - - - -	17
Total Beds, - - - - -	<u>250</u>

A considerable amount of repair work, including repairs to roofs and plaster work, was done during the year, one of our biggest items being broken window panes. The inventor of unbreakable glass would be a very welcome visitor to the Colony. All the outside woodwork in the various pavilions was painted, also the Poultry Department, Laundry, and Power House. Lime spraying of the roughcast of the various buildings would greatly improve their appearance.

RECREATION.—This is considered an important part of the Colony Scheme and we are well equipped with a Recreation Hall. During the winter months, there was a weekly cinematographic entertainment, frequent concerts and a monthly whist drive. The billiard-room was well patronised, there being frequent competitions. There were also facilities for carpet bowls and other indoor games. The arrangements for outdoor recreation consisted of a golf course, putting green, croquet lawn, and quoiting ground. Our thanks are due to the under-noted kind friends who so generously provided entertainments during the season:—

Famous Harmony Entertainers, Motherwell.  
 St. Charles' Concert Party, Glasgow.  
 West Church Girls' Auxiliary, East Kilbride.  
 Park Road Amateur Orchestral Society, Hamilton.  
 Wedgwood Players, Glasgow.  
 The Players, Glasgow.  
 The Kyrle Choir, Glasgow.  
 Miss Leggate's Concert Party, Strathaven.  
 Mr. Hamilton Scott's Concert Party, Stepps.  
 Miss Patricia Isles' Pupils, Cambuslang.  
 6th Cameronians' Band.

Thomson's Orchestra, Cambuslang.  
 The Welfare Entertainers, Glasgow.  
 The Impromptu Entertainers, Glasgow.  
 Rutherglen and District Amateur Players' Dramatic Club.  
 Auchingramont Rover Scouts, Hamilton.

*Lectures :—*

Dr. Harley Williams, National Association for the Prevention of Tuberculosis.

Rev. J. Maxwell Dewar, Eaglesham.

The lectures, being a new feature, were much appreciated by the patients, particularly that by Dr. Harley Williams, Commissioner, N.A.P.T., the subject being "Tuberculosis," illustrated by cinematographic films.

RELIGIOUS SERVICES.—Regular services were held in the Recreation Hall, the undernoted clergymen very kindly giving their services voluntarily :—

Rev. John Anderson, Carmunnock.  
 Rev. J. A. Cowley, Clarkston.  
 Rev. Donald N. Dow, Busby.  
 Rev. J. Maxwell Dewar, Eaglesham.  
 Rev. J. G. Liddell, East Kilbride.  
 Rev. Fr. Murray, Clarkston.  
 Rev. D. L. Seath, Eaglesham.  
 Rev. N. S. Boyd Scott, East Kilbride.  
 Rev. A. M. Wright, Busby.

In addition, Sunday Schools were conducted for both the Protestant and Roman Catholic children.

STAFF.

At the end of the year, the Institution Staff, in addition to the Physician-Superintendent, Assistant Physician, and Matron, included the following :—

Sisters, - - - - -	6	Typist, - - - - -	1
Staff Nurses, - - - - -	3	Clerks, - - - - -	2
Nurses, - - - - -	17	Electric Power Station, -	6
Supervisor, - - - - -	1	Handyman, - - - - -	1
Maids, - - - - -	29	Porter, - - - - -	1
School Teachers, - - - - -	3	Attendant, - - - - -	1
		Total, - - - - -	<hr/> 71 <hr/>

## METEOROLOGICAL REPORT.

## I. RAINFALL.

Month.	Depth in Inches.	Month.	Depth in Inches.
January, - - -	7·70	July, - - -	2·60
February, - - -	·47	August, - - -	5·
March, - - -	3·15	September, - - -	3·60
April, - - -	1·10	October, - - -	6·22
May, - - -	1·81	November, - - -	6·56
June, - - -	2·55	December, - - -	3·71
<hr/>			
Total Rainfall for Year, -			44·47
<hr/>			

This shows a decrease of ·87 inches on the previous year.

During the year, there were 227 completely dry days, being 16 days more than last year.

## II. WINDS.

North, - - -	56	South, - - -	73
North-East, - - -	25	South-West, - - -	36
East, - - -	57	West, - - -	73
South-East, - - -	13	North-West, - - -	32
<hr/>		<hr/>	
151		214	
<hr/>		<hr/>	

## III. TEMPERATURE.

	Highest Reading.	Lowest Reading.	Mean.
January, - - -	46	16	31
February, - - -	56	16	36
March, - - -	55	12	33·5
April, - - -	65	26	45·5
May, - - -	74	28	51
June, - - -	82	36	59
July, - - -	78	40	59
August, - - -	80	43	61·5
September, - - -	72	34	53
October, - - -	57	28	42·5
November, - - -	52	18	35
December, - - -	48	22	35

The mean temperature for the year, therefore, works out at 45·16.

## COLONY DEPARTMENTS.

The training conditions in all departments were similar to those of previous years, the patients being trained by experienced instructors. The working hours per day varied from two to six, according to the patient's physical condition.

## GARDENS.

During the year 21 patients enrolled for training. This department is fully equipped for training in all forms of gardening, and the patients received a good training in the principles of market gardening. The produce was supplied to the Institution, and the surplus was sent to market or sold privately. The staff consists of a head gardener, inside and outside foremen, 9 under gardeners, and a carter.

## FOREST NURSERY.

34 patients enrolled for training in this department. The work, as usual, consisted in the sowing of seeds and the rearing of young trees, shrubs, &c. Privet was grown for the hedges in the various housing schemes, and the planting was done under the supervision of our head forester. There was a ready sale for the roses grown in this department. Willows were also grown for the Basketmaking Department. The staff consists of a head forester, who is also in charge of Camps, a foreman forester, 6 under foresters, a carter, and a caretaker.

## POULTRY FARM.

During the year 46 patients enrolled for training. The work in this department is very suitable for tuberculous subjects, as it is essentially an open-air occupation and the duties are not arduous. There is a certificated poultrymaid in charge, and the average number of patients working was 12. In the Incubator House we had five incubators capable of hatching 650 eggs at one time. The stock of poultry consisted of light and heavy breeds, and included Wyandottes, Rhode Island Reds, Black and White Leghorns. Owing to the exposed situation of the Poultry Farm, it was found that these were the varieties which thrived best. A gratifying feature was the number of hatching eggs and day-old chicks sold, namely, 1,760 hatching eggs and 1,028 day-old chicks.



Altogether, during the year, 1,694 chickens and 63 turkeys were hatched, an increase of 29 on the previous year. At the end of the year the stock consisted of 35 cockerels, 5 cocks, 207 pullets, 162 hens, 8 ducks, 1 drake, 6 turkeys—total, 424 fowls.

#### PIGGERY.

This department was one of the most profitable in the Colony, the pigs sold realising £741 10s. The patients received an excellent training in the rearing and preparation for market of the various breeds. 15 patients enrolled for training, the average number working at one time being 5. The stock at end of year numbered 79, as follows:—1 large white boar, 15 middle white sows, 32 young pigs, and 31 young pigs under six weeks.

#### GUINEA-PIG DEPARTMENT.

This department was in charge of two patients, the majority of the stock being sold to our own County Laboratory. With the increased demand for guinea-pigs and the scarcity of the supply, this seems to be a good outlet for any patient anxious to make a living.

Sold County Laboratory, . . . . .	102
„ Royal Infirmary, Glasgow, . . . . .	12
	— 114
Stock at end of year, . . . . .	114

#### INSTITUTION WORKSHOP.

This department, organised for the carrying out of general Colony repairs, was carried on successfully during the year, patients with previous occupational experience being employed. 10 patients came under this category.

#### GARAGE.

The garage continued to be worked in conjunction with the Motor Repair Department, all the work in connection with our two motor lorries being done by trainees from this department—a good example of the value of Colony training. To stimulate healthy rivalry, a trainee who had completed his training was put in charge of each lorry. This arrangement has worked very satisfactorily, the lorries always being clean and in good condition. Our Dennis and Ford cars were kept steadily employed throughout the year.

## FARM.

The report on this department is one of steady progress. All the milk was purchased by the Colony. The stock is a pedigree Ayrshire herd, and we are licensed to produce certified milk (the highest grade). The average marks for the routine veterinary inspection of the stock, byres, &c., reached the high figure of 96·5 per cent. The whole herd passed the tuberculin test.

We were members of the Scottish Milk Records Association, and the regular examination by the official tester showed that the average butter fat was 4 per cent. for the whole herd, and five cows yielded over 1,000 gallons, the average being 807 gallons. This showed the benefit of regular testing, the rearing from good stock, and the keeping of accurate records. The bacteriological examination of the milk gave the excellent result of only 1,310 blood heat organisms per c.c., and coliform bacilli were absent in a tenth of a c.c. When you consider that you are allowed to have up to 30,000 bacteria per c.c., the result indicated a high standard of cleanliness.

The quality of our stock is still improving judging by the results at the various Cattle Shows, as follows:—

Hamilton—One-year old heifers, first and second.

Chapelton—One-year old heifers, first and second. Bull, championship.

East Kilbride—One-year old heifers, second and third. First for pairs.

This year we reached our highest price for yearling bulls at the Lanark Show and Sale.

Cow-stall fences have been erected in both byres, and have proved very satisfactory.

The crops, particularly the turnips, this year were excellent, being the best all-round average that we have ever had at Hairmyres, and were well secured.

The staff consists of farm manager, dairymaid, assistant dairymaid, byreman, milker, 2 ploughmen, and 2 outdoor workers.

In November we purchased a gelding. The stock at end of year was as follows:—2 stock bulls, 3 bull stirks, 3 bull calves, 38 cows, 46 heifers, 6 heifer calves, 6 work horses.

## INDUSTRIAL WORKSHOPS.

This important part of the Colony scheme continued to make very satisfactory progress. It is pleasing to record that a start was made with the necessary extensions which will almost double our workshop area, and, when completed, will allow for almost 50 trainees under this scheme. Although training was our first consideration, it is gratifying to record a satisfactory financial position, the receipts in the various departments reaching a total of over £1,000. 3 trainees were successful in obtaining the certificate of the City and Guilds of London Institute, 1 obtaining a first-class certificate in the Final grade, and 2 second-class certificates in Grade II.

It is to be regretted that no further progress has been made with the scheme of After-care. We are still awaiting the decision of the Department of Health.

MOTOR DEPARTMENT.—22 patients enrolled for training. This department continued to be one of our most popular. It is pleasing to record that the majority of the trainees were successful in obtaining work as motor drivers after leaving the Colony. All the trainees obtained the certificate of the Royal Automobile Club, not an easy certificate to obtain as it entails a driving test in city traffic and a *viva voce* examination. Our Darracq car, being completely done, was scrapped, and an old Vulcan car purchased in its place. We now have for demonstration purposes 3 old cars—an Austin, Ford, and Vulcan. These are representative of the different types of gear changing. Our Dennis and Ford lorries were used for traffic driving. The usual lectures and demonstrations were given on our Wolseley chassis specially sectioned for the purpose. There was a certain amount of general repair work done in the department.

CABINETMAKING DEPARTMENT.—A large amount of furniture of all descriptions was made in this department, the timbers used being mainly oak, mahogany, and walnut. A certain amount of veneering was done. The receipts totalled £314 14s. The patients are now receiving an excellent training in the finer cabinet work, and the work turned out has been of a high standard. This is particularly marked in the French-polishing section. A little upholstering has also been done. 17 patients enrolled for training.

BOOT-REPAIRING DEPARTMENT. — This department was steadily employed during the year, and the receipts totalled £301 10s. When

we remove to our larger workshops, the question of taking in repairs from schools and Public Assistance cases should be considered. Our finishing machine is now very much worn, being of a rather obsolete pattern and not sufficiently protected as regards dust. The latter is very important when one is training tuberculous subjects. The latest finishing machine is amply protected from this danger. In this department there were always one or two men with crippled lower limbs, as this is one of the few occupations suitable for them. 9 patients enrolled for training.

BASKETMAKING DEPARTMENT. — Progress has been particularly marked in this department, although we have been very much handicapped owing to lack of accommodation. The receipts totalled £340 10s. We displayed our wares at several Sales of Work, and a special feature this year was the display at the East Kilbride Cattle Show. All these efforts have helped to advertise our work, and the result is shown by the large increase in orders. We have had enquiries from all over the West of Scotland for pigeon panniers, and we are now making a special feature of this work. This Christmas we could not supply the demand for basketwork.

HAIRMYRES COLONY,  
FEBRUARY, 1931.

## VETERINARY INSPECTION OF DAIRY HERDS.

The veterinary inspection of dairy herds was carried out by the County Veterinary Inspector and an assistant.

The record shows that 912 dairy herds, containing 18,758 cows, were examined. As on former occasions, samples of milk were drawn from all udders, which, on examination, showed suspicious conditions. In this way 461 samples of milk were taken and sent to the Bacteriological Laboratory, where, after examination, 43 were found to contain tubercle bacilli, 141 were found to contain other infectious organisms, and 277 gave negative results.

In all cases where infectious organisms were found in the milk samples, certificates were granted by the Veterinary Surgeon in terms of Section 4 (2) of the Milk and Dairies (Scotland) Act, 1914. Where tubercle bacilli were present, arrangements were made with the owners to have the cows slaughtered immediately in terms of Article 5 (1) of the Tuberculosis Order, 1925. In all other cases where cows were found to be suffering from "disease liable to infect or contaminate the milk" (*e.g.*, streptococci found in the milk sample), communications were at once issued to the owners pointing out their responsibilities under the Milk and Dairies Act, and inquiring as to the arrangements they were making to comply with the requirements of Section 13 (1) and (2) and Section 24 (1) and (2) of the Act.

Cows with other abnormal conditions of the udder were also recorded, and the results are shown in the following table:—

## INSPECTION OF DAIRY HERDS, 1930, CLASSIFIED ACCORDING TO PARISH.

PARISH.	Herds Registered.	Herds Inspected.	Cows Inspected.	Cows with Abnormal Conditions of Udder.							Samples of Milk.			
				Tubercle.	Atrophy.	Mammitis.	Induration N.T.	Eruption on Teats.	Total.	Number taken.	Number found to contain Tubercle bacilli.	Number found to contain other infectious organisms.	Number negative.	
Avondale, - -	142	167	4,296	9	121	8	59	14	211	124	9†	30	85	
East Kilbride, -	103	129	3,197	6	118	8	46	29	207	88	7	27	54	
Glasford, - -	51	63	1,240	2	39	4	27	10	82	35	2	13	20	
Stonehouse, -	31	38	800	...	25	1	11	2	39	17	...	5	12	
<i>First Division, -</i>	<i>327</i>	<i>397</i>	<i>9,533</i>	<i>17</i>	<i>303</i>	<i>21</i>	<i>143</i>	<i>55</i>	<i>539</i>	<i>264</i>	<i>18</i>	<i>75</i>	<i>171</i>	
Blantyre, - -	21	26	377	1	16	...	3	1	21	4	1	1	2	
Bothwell, - -	73	81	1,267	4	37	...	25	5	71	34	4	11	19	
Cambuslang, -	22	29	525	...	31	4	3	5	43	9	...	2	7	
Cambusnethan, -	50	62	1,218	2	34	5	29	16	86	35	2	16	17	
Dalserf, - -	24	28	588	...	21	2	3	2	28	6	...	3	3	
Dalziel, - -	6	8	263	2	13	...	3	...	18	6	2	2	2	
Hamilton, - -	46	52	1,058	1	42	2	27	4	76	32	1	14	17	
<i>Second Division, -</i>	<i>242</i>	<i>286</i>	<i>5,296</i>	<i>10</i>	<i>194</i>	<i>13</i>	<i>93</i>	<i>33</i>	<i>343</i>	<i>126</i>	<i>10</i>	<i>49</i>	<i>67</i>	
New Monkland, -	74	87	1,361	6	35	2	18	2	63	23	6	6	11	
Old Monkland, -	32	48	955	3	36	1	13	4	57	21	4	4	13	
Shotts, - -	66	94	1,613	5	41	2	24	1	73	27	5	7	15	
<i>Third Division, -</i>	<i>172</i>	<i>229</i>	<i>3,929</i>	<i>14</i>	<i>112</i>	<i>5</i>	<i>55</i>	<i>7</i>	<i>193</i>	<i>71</i>	<i>15</i>	<i>17</i>	<i>39</i>	
<i>Middle Ward, -</i>	<i>741</i>	<i>912</i>	<i>18,758</i>	<i>41</i>	<i>609</i>	<i>39</i>	<i>291</i>	<i>95</i>	<i>1,075</i>	<i>461</i>	<i>43†</i>	<i>141*</i>	<i>277</i>	

\* These samples were taken from 140 cows. † One samples also contained other infectious organisms.

† These samples were taken from 41 cows

The total figures for abnormal conditions of the udder include 73 cases of suspected tubercle which gave negative results, and are therefore classified as induration.

These abnormal conditions, and the number of cows affected, were as follows:—Tubercle, 41; atrophy, 609; mammitis, 39; induration N.T., 291; and eruption on teats, 95; a total of 1,075, or 5.73 per cent. of the total cows examined.



## MATERNITY AND CHILD WELFARE.

*Health Visiting Staff.* — There are 17 full-time Nurse Health Visitors, each of whom holds the certificate of the Central Midwives Board, and in addition to the visitation of mothers and infants they act as Assistant Inspectors of Midwives. Part-time assistance is also received from seven District Nursing Associations.

*Births Registered.* — There were registered the births of 5,034 infants—males, 2,480; and females, 2,554—which is equivalent to a birth-rate of 21·07 per 1,000 of the population, and is an increase of 0·1 compared with the rate for 1929. The rates for the past ten years are shown in Table A, which also shows the rates for decennial periods from 1891 to 1930. There were 333 illegitimate births—males, 166; and females, 167—which is equal to 6·6 per cent. of the total births.

*Births Notified.*—The number of statutory notifications received was 5,037, and of these 4,832 were notifications of live-born children, the remainder—205—being notifications of still-births. The percentage of births notified to births registered was 95·9, excluding still-births. In addition, 108 notifications were received as a result of letters addressed to parents, and 119 were brought to our notice by the Nurse Health Visitors, giving a gross total of 5,264.

The sources of notifications were as follows:—

Doctors.	Midwives.	Handy- women.	Parents.	Institutions.	Other Sources.	Health Visitors.	Total.
1,192	2,732	8	260	662	291	119	5,264

To the number of births notified there falls to be added the births of 109 infants which occurred in institutions in the Middle Ward, but whose parents resided in areas outwith the Middle Ward District. 104 of these were notified from Bellshill Hospital, 1 from Hartwood Asylum, and 4 from Thrashbush House, Airdrie.

Table M 1 shows the births registered, births notified, visits made by the Nurse Health Visitors, the attendant at confinement as ascertained at the first visit, deaths registered, and the infantile death-rate, the information being tabulated according to registration districts.

## BIRTHS REGISTERED AND NOTIFIED.

## VISITS MADE BY NURSE HEALTH VISITORS AND INFANTILE MORTALITY RATES FOR 1930.

REGISTRATION DISTRICTS.	BIRTHS.			NUMBER OF VISITS.			ATTENDANT AT CONFINEMENT.				INFANT DEATHS.					
	Registered. Legiti- mate.	Notified.		First.	Subsequent.		Special.	Total.	Doctor alone or with Handy- woman.	Midwife.	Handy- woman.	B.B.A. Instit.	Regis- tered.	Rate per 1,000 Births		
		Alive.	Still- born.		Infants.	Mothers.										
Avondale, - - -	91	7	102	99	974	15	64	1,152	37	26	22	1	13	10	102.0	
East Kilbride, - - -	70	6	76	73	367	43	55	538	50	8	5	1	9	3	39.4	
Glasford, - - -	20	2	22	25	287	-	-	312	4	7	12	1	1	1	45.4	
Stonehouse, - - -	74	5	82	77	815	-	-	892	7	18	50	-	2	7	85.6	
<i>First Division,</i>	255	20	282	274	2,443	58	119	2,894	98	59	89	-	3	25	21	76.4
Blantyre, - - -	418	27	447	451	2,317	221	720	3,709	22	94	241	4	18	72	38	85.4
Bothwell, - - -	437	21	460	446	3,984	118	604	5,152	19	114	237	2	10	64	32	69.8
Bellsill, - - -	488	40	534	551	5,399	110	579	6,639	16	217	213	1	17	87	44	83.3
Holytown, - - -	419	26	443	457	3,711	91	597	4,856	48	171	161	3	8	66	49	110.1
Cambuslang, - - -	534	24	560	521	4,350	39	748	5,658	184	59	208	3	4	63	47	84.2
Cambusnethan, - - -	286	21	315	311	3,467	64	289	4,131	178	71	29	1	6	26	30	97.7
Calderhead, - - -	130	6	134	150	558	21	90	819	102	23	9	1	1	14	5	36.7
Dalserf, - - -	86	10	96	110	1,586	1	23	1,720	42	18	27	6	2	15	12	125.0
Larkhall, - - -	331	27	346	334	2,747	7	323	3,411	26	114	134	8	5	47	22	61.4
Dalziel, - - -	13	-	20	6	139	-	-	145	1	2	3	-	-	-	2	153.8
Hamilton, - - -	156	27	180	193	1,856	50	169	2,268	29	23	101	4	4	32	15	81.9
<i>Second Division,</i>	3,298	229	3,535	3,530	30,114	722	4,142	38,508	667	906	1,363	33	75	486	296	83.9
New Monkland, - - -	279	20	311	269	1,544	5	67	1,885	25	73	137	-	5	29	26	86.9
Old Monkland (East), - - -	70	1	74	77	394	1	35	507	1	26	32	1	2	15	3	42.2
Do. (Coatbridge) - - -	71	6	72	58	258	11	20	347	8	5	31	3	1	10	10	129.8
Do. (West), - - -	291	32	320	323	1,497	90	154	2,064	95	47	112	10	3	56	31	95.9
Shotts (East), - - -	121	10	128	145	701	9	115	970	68	24	44	1	-	8	8	61.0
Do. (Middle), - - -	60	1	61	43	902	19	255	1,219	30	1	-	2	10	10	15	245.9
Do. (Calderhead), - - -	163	9	172	182	850	50	164	1,246	127	27	13	3	2	10	12	69.7
Do. (West), - - -	77	4	84	96	1,372	15	240	1,723	63	11	11	2	1	8	5	61.7
Do. (North), - - -	16	1	20	5	22	-	3	30	-	-	4	-	-	1	4	255.2
<i>Third Division,</i>	1,148	84	1,242	1,198	7,540	200	1,053	9,991	417	214	384	20	16	147	114	92.5
<i>Total,</i>	4,701	333	5,059	5,002	40,097	980	5,314	51,393	1,182	1,179	1,836	53	94	658	431	85.6
	5,034			5,264												

Reference to the table shows that the total number of domiciliary visits made by the staff during the year was 51,393, a decrease of 2,044 compared with the previous year. The special visits referred to numbered 5,314, and were made in connection with the following conditions:—Ante-natal cases, 3,300; infant death inquiries, 127; ophthalmia neonatorum, 590; squint, 344; puerperal fever, 63; whooping-cough, 41; adopted babies (first and re-visits) 469; ear, nose, and throat, 128; and inquiries regarding accounts under the Midwives Act, 252.

*Attendance at Confinement.*—Particulars connected with 4,801 live infants have been recorded. Of this number it has been found that, 1,146 (23·8 per cent.) were attended by medical practitioners alone, or assisted by neighbours or relatives; 1,120 (23·3 per cent.) by doctors assisted by certified midwives; 1,806 (37·6 per cent.) by certified midwives; 52 (1·0 per cent.) by women not on the midwives roll; 586 (12·2 per cent.) occurred in institutions; and in the case of 91 (1·9 per cent.) the birth took place before the arrival of an attendant.

Of the 205 still-births notified, particulars of 201 have been recorded, and the attendants at birth in these were as follows:—59 (29·3 per cent.) by doctors and midwives; 36 (17·9 per cent.) by doctors alone, or assisted by an unqualified person; 30 (14·9 per cent.) by midwives alone; 72 (35·8 per cent.) in institutions; 1 (0·5 per cent.) by an unqualified person; and 3 (1·4 per cent.) were born before the arrival of an attendant.

Comparison with the previous years shows that there is remarkably little change in the figure giving the classification of the attendants at birth.

		1926	1927	1928	1929	1930	
Cases attended by Midwives,		39·9	39·2	40·6	39·2	36·7	per cent.
Do.	Doctors and						
	Midwives,	22·4	23·0	21·8	22·5	23·5	„
Do.	Doctors,	25·1	22·8	23·2	24·7	23·6	„
Do.	Handywomen,	0·6	1·2	1·1	0·8	1·0	„
Do.	Institutions,	11·1	12·6	12·0	11·3	13·1	„
	B.B.A.,	0·6	0·8	1·0	1·3	1·8	„

*Feeding at Age of Six Months.*—4,876 records, relating to infants born between July, 1929, and June, 1930, were investigated to determine the feeding at the age of six months, and the results were classified as follows:—Wholly breast-fed, 2,378 (48·7 per cent.); partially breast-fed, 269 (5·5 per cent.); artificially fed, 1,545 (31·6 per cent.); died or removed, 578 (11·8 per cent.); and information incomplete, 106 (2·1 per cent.)

### Infantile Mortality.

Deaths of infants under the age of one year numbered 431, which is equivalent to an infantile mortality rate of 85·6 per 1,000 births, compared with 85·3 for the previous year. The infantile mortality rate in each registration district is set forth in Table MI.

The accompanying chart shows the decided and sustained fall in the Infantile Death Rate since the Notification of Births (Extension) Act, 1915, and the beginning of the Child Welfare Schemes.

*Trend of Infantile Mortality from certain specified causes from 1911-1930—rates per 1,000 births.*

		Births Registered.	Diarrhoea and Enteritis.	Other Digestive Diseases.	Measles	Whooping Cough.	Pneumonia.	Bronchitis.	Other Respi- ratory Diseases.	Infantile Death Rate.
QUINQUENNIAL.										
1911-15 (Average)	7,033	18·5	3·3	3·6	8·8	15·4	6·7	1·02	118·2 (Average)	
1916-20 (    „    )	6,605	13·2	1·8	3·3	5·8	12·4	6·7	1·02	102·6 (    „    )	
1921-25 (    „    )	6,506	8·9	1·5	2·4	7·1	10·4	5·4	0·74	92·4 (    „    )	
1926-30 (    „    )	5,395	5·1	1·1	2·3	4·9	11·6	5·2	0·73	85·6 (    „    )	
ANNUAL.										
1926 ...	5,928	6·4	0·84	1·5	2·8	9·1	4·9	0·34	82·4 (Actual)	
1927 ...	5,640	5·5	0·88	1·1	3·01	15·8	4·4	0·70	87·4 (    „    )	
1928 ...	5,382	7·2	1·40	5·5	9·08	9·3	4·8	0·93	91·2 (    „    )	
1929 ...	4,994	6·03	0·40	0·40	7·0	12·06	6·03	1·40	85·3 (    „    )	
1930 ...	5,034	5·56	1·9	2·77	3·37	12·7	6·35	0·39	85·6 (    „    )	

The above table shows the definite fall in deaths from diarrhoea and enteritis (from 18·5 to 5·56) a fall of 68·6 per cent., and from other digestive diseases (3·3 to 1·9) a fall of 39·8 per cent., while the fall in the total infantile deaths from 1911-30 was 27·6 per cent. These two categories are those which come under maternity and child welfare treatment. The death-rates from measles, whooping-cough, and respiratory diseases still show no definite downward trend.

INFANT MORTALITY PER 1,000 BIRTHS 1891-1930.  
MIDDLE WARD DISTRICT.

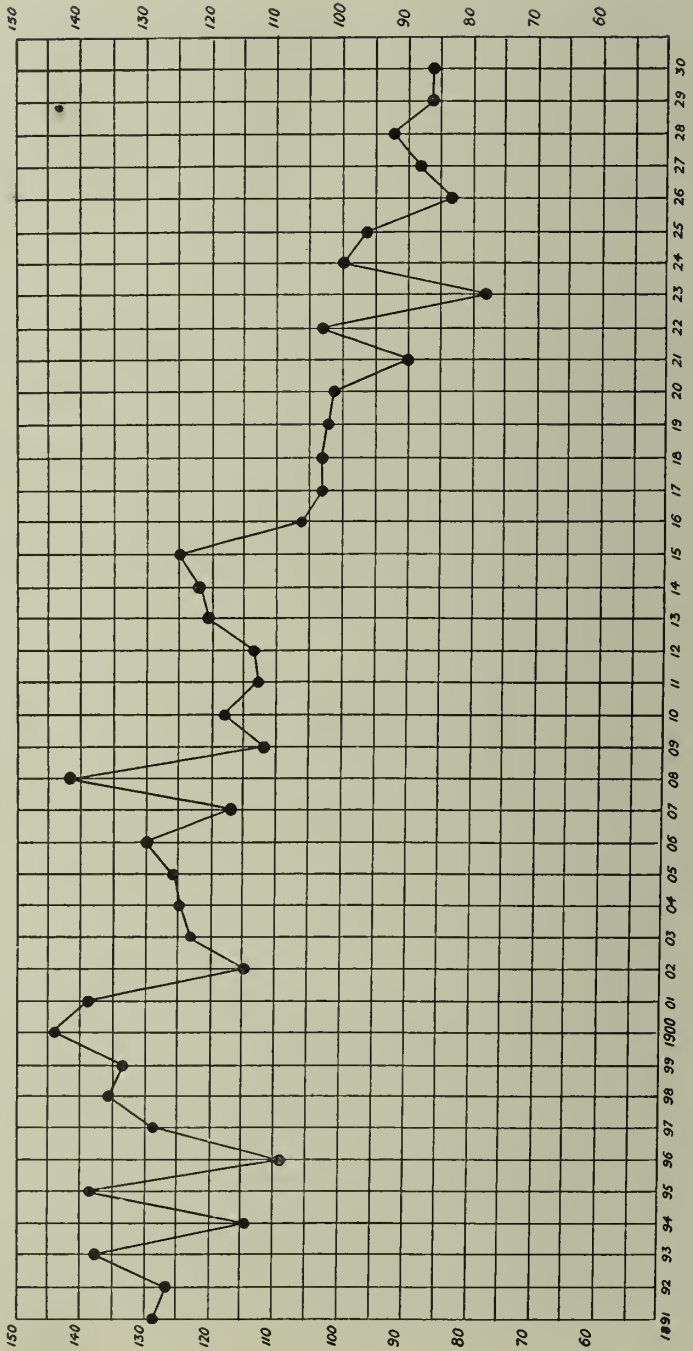


Table M II shows the deaths arranged according to group-causes and age-periods :—

TABLE M II.

CAUSE OF DEATH.	AGE PERIODS.										Rate per 1,000 Births.
	WEEKS.				Total.	MONTHS.				Total.	
	- 1	1-2	2-3	3-4		- 4	1-3	3-6	6-9		
1. Prematurity, - -	61	4	5	3	73	7	1	—	—	81	16·09
Congenital Malfor- mation, - -	8	1	1	—	10	1	2	—	—	13	2·58
Congenital Heart, Atelectasis, - -	5	—	—	1	6	2	—	—	—	8	1·58
Injury at Birth, -	4	1	2	—	7	—	—	—	—	7	1·39
	5	—	—	—	5	—	—	—	—	5	0·99
2. Atrophy, Debility, and Marasmus, -	24	7	2	2	35	6	13	7	1	62	12·31
3. Diarrhœa, - -	—	2	—	—	2	7	7	3	9	28	5·56
4. Pneumonia, - -	—	—	1	1	2	15	17	19	11	64	12·71
Bronchitis, - -	1	4	2	—	7	9	8	4	4	32	6·35
Other Respiratory Diseases, - -	—	—	—	—	—	—	—	2	—	2	0·39
5. Tuberculosis— Meningeal, -	—	—	—	—	—	—	2	3	1	6	1·19
Abdominal, -	—	—	—	—	—	—	—	—	—	—	—
6. Convulsions, - -	6	1	1	—	8	7	2	3	2	22	4·37
Meningitis, - -	—	—	—	1	1	—	1	6	2	10	1·98
7. Measles, - - -	—	—	—	—	—	—	—	5	9	14	2·78
Whooping-cough, -	—	—	—	—	—	5	5	5	2	17	3·37
Diphtheria, - -	—	—	—	—	—	—	—	2	3	5	0·99
Erysipelas, - -	—	—	—	—	—	—	—	—	—	—	—
8. Syphilis, - - -	—	1	—	—	1	3	—	—	—	4	0·79
9. All Other Causes, -	3	3	2	3	11	8	12	13	7	51	10·13
	117	24	16	11	168	70	70	72	51	431	85·61
Rate per 1,000 births,	23·24	4·76	3·17	2·18	33·37	13·90	13·90	14·30	10·13	85·61	

*Neonatal Deaths with reference to Ante-partum and Intra-partum Causes.*—In the Middle Ward District there were 168 deaths in infants under the age of four weeks. In 110 of these it is doubtful



if any known treatment either of mother or child would have prevented the early death of the infant. The causes of these deaths were as follows:—

Prematurity from unpreventable or unknown causes,	-	51
Atelectasis, Atrophy, Debility and Marasmus (cause unknown),	- - - - -	21
Congenital Malformation,	- - - - -	18
Acute Respiratory disease in healthy infants,	- -	9
Injury at Birth,	- - - - -	5
Other Causes,	- - - - -	6
		<hr/>
		110

In 58 cases the mothers were suffering from diseases or complications of pregnancy, which could either have been prevented, or at least ameliorated, by treatment if medical advice had been sought early enough and undoubtedly most, if not all, of their infants could have been born healthy.

The following is a list of those ante-partum and intra-partum diseases and complications:—

Albuminuria in mother,	- - - - -	14
Definite Anæmia and Debility,	- - - - -	29
Eclampsia,	- - - - -	4
Syphilis,	- - - - -	2
Pernicious Vomiting,	- - - - -	2
Pyelitis,	- - - - -	3
Contracted Pelvis,	- - - - -	4
		<hr/>
		58

### Investigation of Maternal Deaths.

The arrangements made for the investigation of maternal deaths worked satisfactorily and no serious difficulty was encountered in collecting information. The enquiry is apparently not resented by the relatives nor by medical practitioners or midwives.

Reports on 50 cases were prepared and sent to the Department of Health, 39 of these being with reference to deaths ascribable to diseases and accidents peculiar to pregnancy and 11 to other causes associated with pregnancy or parturition. The preparation of the special reports requires a good deal of time and labour, but the accumulated information should justify the trouble.

The more important features of the cases are referred to in the following comments.

#### NON-SEPTIC CAUSES.

*Albuminuria, Eclampsia, and Toxæmia of Pregnancy.*—In two cases it would appear that pre-eclamptic albuminuria was of very short duration or did not manifest itself at all. There were no other warning symptoms, and it is difficult to see how the fatal illness could have been anticipated or prevented. It is not clear, however, that the mothers received specific and definite instructions as to the interval between the repeated urinary examinations. Casual references to bringing another specimen are not sufficient and for some time yet a system of following up defaulters would be necessary. The Departmental Committee set forth a standard of 11 examinations during the course of a normal pregnancy. A general practitioner will readily admit that he is not prepared to practice this ideal without payment which the ordinary patient cannot afford. It is a duty which can be quite well carried out by a trained midwife and the procedure might be followed by expectant mothers, provided the importance of it was impressed on them by the family doctor. Even if every pregnant woman had a doctor and midwife engaged for her confinement by an extension of medical benefit under the National Health Insurance Act, the success of the combination would be seriously curtailed by the lack of training of a majority of the practising midwives. 63 per cent. of the midwives in Lanarkshire could not be entrusted with the duty of examining urines. It would therefore seem that the Local Authority should provide the necessary facilities—which they do in this County—and that doctors and midwives should make the fullest use of them. The scheme breaks down on the latter desideration. There is no enthusiasm amongst practitioners for the routine examination of urines even by a system of referring unremunerative cases to the Child Welfare Centres. For this reason the importance of the whole subject is minimised. The excuse of the midwife is that she is not engaged for her cases until the last moment. This statement is disproved by investigation. When engaged to attend a confinement a midwife is now bound to advise her patient to seek medical advice or to avail herself of the help provided by the Local Authority, and should the patient refuse or neglect to do so the midwife must notify the Local Authority. In the event of this regulation being observed strictly, the whole onus

of failing to take the first step towards efficient ante-natal care will be thrown on the mother herself. If she acts on the advice of the midwife those whom she consults must be prepared to offer adequate advice and treatment or the whole practice of pre-natal care will be brought into disrepute.

It will be observed that these remarks apply not only to the prevention of eclampsia, but also to all those causes of death which may be prevented by early expert examination and advice.

The deaths from these causes also illustrate the need for active educational work amongst mothers. In one instance the premonitory symptoms were recognised in good time, but the combined exhortations of the doctor, health visitor, and relatives could not induce the patient to go to hospital. In another case advice was not sought until two months after the appearance of the first symptoms—perhaps because the mother was ignorant of their significance, or because she was indifferent to the danger, or because she was unwilling to incur the expense of medical attendance. In a third case the patient failed to carry out the treatment prescribed by her own doctor, who was treating her at home. In this connection, it is doubtful if domiciliary treatment should be continued if the symptoms show no signs of clearing up during a brief period of observation.

*Hæmorrhage.*—In two cases, a premonitory bleeding was not regarded with sufficient gravity—in one by the patient herself—in the other by the midwife. In the latter instance the attendant allowed herself to be influenced by the wishes of the mother, and in spite of her better judgment, delayed in calling a doctor.

The deaths from placenta prævia of 2 mothers undelivered 5 and 6 days after admission to hospital presents a problem for further obstetrical investigation.

The death of a mother from post-partum hæmorrhage in an isolated house with no facilities for major interference illustrated the need for great judgment and skill on the part of the midwife and doctor in dealing with emergencies. The midwife was a very well trained woman with recent hospital experience, but it is doubtful if she had confidence to apply her knowledge on her own initiative. She lost no time in summoning a doctor and the patient was removed to the Maternity Hospital, where she died 45 minutes after admission. It is a matter for consideration whether, in such circumstances, the

better plan would not be to bring a consultant specialist to the patient.

*Cardiac Failure and Shock.*—A primipara was admitted to the Maternity Hospital and died  $9\frac{1}{2}$  hours after craniotomy was performed. There had been serious delay on the part of the midwife in calling a doctor and the case was reported to the Central Midwives Board by whom she was admonished. Some weeks prior to confinement her doctor made an abdominal examination and found nothing abnormal, but the case was reported to be one of contracted pelvis by the superintendent of the hospital. The case illustrates the need for a full ante-natal examination of women about to have their first baby.

In none of the three instances in which death was ascribed to heart failure was there a history of cardiac disease or of difficult labour.

*Abortion.*—In two cases death was ascribed to sepsis and in one to cardiac failure. Of the former, in one instance sepsis followed therapeutic abortion induced in hospital under conditions of surgical asepsis by an obstetrical specialist. In the other instance it is possible that the case was one of intentional abortion.

*Other Disease and Accidents of Pregnancy.*—One mother died suddenly from pulmonary embolism and one from rupture of the uterus. In the latter case the doctor had not been engaged for the confinement and no ante-natal examination was made. He was called on account of delayed labour due to persistent occipito-posterior presentation and after failing to deliver with forceps performed version. He was of opinion that rupture took place prior to his interference, but post-mortem examination revealed a healthy uterine wall.

*Associated Causes of Death.*—The value of post-mortem examination was exemplified by three cases which would almost certainly have been classified as deaths due to pregnancy—two patients were diagnosed and treated as suffering from toxic hyperemesis: in one instance death was proved to be due to a cerebral tumour, in the other to tuberculous meningitis. In another case the patient was treated for eclampsia, but post-mortem the symptoms were found to have been caused by multiple meningeal cysts.

The deaths from heart disease suggested the need for hospitalisation of many cardiac cases. It would also be an advantage if a specialist in heart disease could be called in, with a view to determining the extent of the cardiac lesion and the capacity of the patient to go to full term.

Special arrangements are in force in the County for dealing with tuberculous mothers who become pregnant, and the patient who died of pulmonary tuberculosis was seen in consultation by the Tuberculosis Officer and the Superintendent of the Maternity Hospital.

#### PUERPERAL SEPSIS.

The deaths from this cause were again the largest single factor in the maternal mortality rate and accounted for more than half the total deaths.

In three cases no material was obtained for bacteriological examination as the patients were moribund on admission to hospital. Hæmolytic streptococci were recovered from 12 or 70 per cent. of the other cases—in 2 instances from blood cultures, in 1 from peritoneal fluid, and in 9 from intrauterine swabs.

All the patients were admitted to hospital, but 3 died within 12 hours and other 2 within 36 hours. There are various reasons for the delay in admission, and it is difficult to refuse the final resort of hospital treatment even when a patient is *in extremis*; but if the 5 cases for whom there was little hope had been left at home, the reputation of institutional treatment would have been saved by that amount and the earlier consent of future cases obtained the more easily. There is evidence from the reports that a private doctor requires courage to suggest removal to hospital in some instances, and in 2 cases the patients were described as being “almost hysterical” when the proposal was made to them. A practitioner has then to consider whether a higher degree of medical and nursing attention will counterbalance the effects of the severe emotional disturbance entailed in removing a mother from her familiar surroundings. The influence of early treatment in saving the lives of some patients is a subject more within the province of the hospital physician. It may be assumed on theoretical grounds that the earlier skilled treatment is begun the greater is the hope of recovery. Nevertheless there are several records amongst those cases which suggest the existence of infections of such virulence that no treatment, however early or energetic, is of any avail.



There were three examples of association with other septic cases occurring in the practice of the midwife-attendant. The swabbing of the throats of midwives who have been in contact with cases of puerperal sepsis was not begun until late in 1930, but the procedure was followed in one instance with a negative result. One midwife had 6 cases in the course of five months. Her association with the patients was a restricted and indirect one, however, as she acted as an instructor of pupil midwives who carried out the confinements. Nevertheless a series of bacteriological examinations of the throat and nose might have revealed her to be the common source of infection. Apart from infection by carriers, there were examples of other probable sources of infection from recognised septic foci. For example, in one instance the midwife suffered from a sty and in another the doctor had a boil on the face. Pre-existing infective lesions in the mother were exemplified by cases of gonorrhœal parametritis, septic sore throat, septic thrombophlebitis, advanced dental caries, and purulent bronchitis.

In considering the part played by trauma in the causation of puerperal infections, it is a noticeable feature of the reports that many cases described by the doctor in attendance as having suffered no injury were found by the hospital physician to have sustained quite definite injuries. This applies particularly to lacerations of the cervix and is no doubt due to the difference in facilities for examining the patient thoroughly. It is of interest because many family doctors, in expressing their surprise that the case went septic, emphasise the fact that the confinement had been normal and without injury to the mother.

It is evident that attendance at a confinement disorganises the daily routine of a busy general practitioner and, apart from the demands of the mother and relatives to terminate the labour as quickly as possible, leads to the hurried conduct of the confinement. Recognising this fact, many doctors are sending their patients to a midwife and undertaking to attend in the event of an emergency. One doctor stated that he had adopted this procedure as a routine measure in his practice, and by using the machinery of the Midwives Act, was guaranteed his fee. The midwife-doctor combination has been advocated as the basis of a national maternity service, but it is not an equitable or efficient arrangement when instituted in this fashion. It makes no provision for medical attendance during the ante-natal period and does not guarantee the midwife's fee. If the



Local Authority takes energetic steps to recover the cost of medical assistance, mothers will not readily consent to the calling in of a doctor. The more comprehensive schemes providing a full range of service by a system of contributory insurance are to be preferred.

The records reveal many indications for more extensive and efficient ante-natal supervision. In this connection, it is clear that at least as much emphasis should be laid on the need for instruction in physical and mental hygiene as on the obstetrical examination of the patient. The general health of the mother and the circumstances of her home life call for careful investigation. The influence of mental distress is apparent and physical debility has to be dealt with. In some instances it was stated that the mother "should never have been pregnant" because of her general ill-health and consequent inability to deal with any infection however slight.

In certain cases the family doctor has expressed the opinion that the death should not have been classified as due to puerperal fever. For example, one patient had a well-marked bronchitis which subsequently developed into pneumonia. In another case the mother suffered from profound anæmia—the R.B.C.'s numbered only 720,000—and the temperature did not exceed 100°F. There is no doubt that some standard of diagnosis would be advantageous and also, if possible, a uniform classification of the different conditions embraced in the generic term "puerperal fever." But the infection is not a standard one and the reactions of different individuals to infection are far from being uniform. Nevertheless it might be desirable to restrict the diagnosis of puerperal fever or sepsis to those cases in which there is substantial evidence of infection until our knowledge of the subject becomes more exact.

TABLE M III.—MATERNAL DEATHS ARRANGED ACCORDING TO GROUP CAUSES SINCE 1910; NUMBER OF BIRTHS, BIRTH-RATES, AND MATERNAL DEATH-RATES EXPRESSED PER 1,000 BIRTHS.

Registered Cause.	1910-1914	1915-1919	1920, 1924	1925-1929	1930
Puerperal Sepsis, ... ..	66	49	100	94	20
Albuminuria of Pregnancy and Eclampsia,	17	26	38	21	4
Hæmorrhage, ... ..	35	23	27	18	4
Cardiac Failure and Shock, ... ..	15	10	22	7	4
Abortion, ... ..	10	4	4	3	3
Toxæmia of Pregnancy, ... ..	11	4	12	6	2
Other Diseases and Accidents of Pregnancy,	23	33	24	21	2*
	177	149	227	170	39
Registered Births, ... ..	35,790	32,158	33,418	28,120	5,034
Birth-rates, ... ..	34.9	30.4	29.5	23.6	21.06
Death-rate per 1,000 births (Puerperal Sepsis), ... ..	1.84	1.52	2.99	3.34	3.97
Death-rate per 1,000 births (excluding Puerperal Sepsis), ... ..	3.1	3.10	3.80	2.70	3.77
Death rate per 1,000 births— <i>Total</i> , ... ..	4.94	4.63	6.79	6.04	7.74

(1) \* Pulmonary Embolism, Cardiac Failure.

(2) Rupture of Uterus, associated with retained Placenta.

TABLE M IV.

MATERNAL DEATHS FROM CAUSES ASSOCIATED WITH, BUT NOT DUE TO  
PREGNANCY OR PARTURITION.

Pneumonia, - - - - -	2
Myocarditis, - - - - -	2
Pulmonary Tuberculosis, - - - - -	1
Acute Miliary Tuberculosis, - - - - -	1
Tuberculosis Meningitis, - - - - -	1
Acute Yellow Atrophy of the Liver, - - - - -	1
Encephalitis Lethargica, - - - - -	1
Cerebellar Tumour, - - - - -	1
Multiple Meningeal Cysts, - - - - -	1
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### Hospital Treatment and Maternal Mortality.

Table M IV shows the total number of births notified, the number of institutional births and maternal deaths, and the institutional confinements and maternal mortality rates per 1,000 births since the year 1916:—

TABLE M V.

Year.	Total Births Notified.	Institution Births.	Maternal Deaths.	Institution Confinements per 1,000 Births.	Maternal Mortality per 1,000 Births.
1916	6,483	48	35	7.40	5.39
1917	5,944	15	21	2.52	3.53
1918	6,385	37	23	5.79	3.60
1919	6,308	58	37	9.19	5.86
1920	7,718	174	44	22.54	5.70
1921	7,229	267	45	36.92	6.22
1922	6,478	238	54	36.74	8.33
1923	6,245	314	50	50.28	8.00
1924	6,343	383	34	60.38	5.36
1925	6,343	523	39	82.45	6.14
1926	6,115	647	39	105.80	6.37
1927	5,714	676	33	118.30	5.77
1928	5,619	645	34	114.78	6.05
1929	5,228	529	25	101.18	4.78
1930	5,264	662	39	125.76	7.40

### Puerperal Fever.

The number of notifications, 74, is much less than any of the three preceding years, and the diminution is probably due to the operation of the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations (Scotland), 1929. It is probable that many cases notified as puerperal pyrexia would, in the absence of these Regulations, have been notified under the Infectious Disease (Notification) Act, 1889, as puerperal fever, and, therefore, the notifications figure is not strictly comparable with the corresponding figures of previous years. A more exact comparison would be the total incidence as represented by the number of notifications, *plus* the actual number of cases of puerperal pyrexia finally diagnosed in hospital as cases of puerperal sepsis. The total incidence determined thus is 107, and is higher than the notification figures for any previous year. The following table shows the incidence as determined above, and death-rates of puerperal fever in comparison with similar rates for the previous decennium:—

TABLE M VI.

Year.	Births Notified.	Total Cases.	Rate per		Fatality Rate.	Death- Rate per
			1,000 Births.	No. of Deaths.		1,000 Births.
1920	7,718	60	7.9	25	41.6	3.3
1921	7,229	68	9.6	25	36.7	3.5
1922	6,478	69	10.8	20	28.9	3.1
1923	6,245	62	9.9	17	27.4	2.7
1924	6,343	54	8.6	15	27.7	2.4
1925	6,343	53	8.5	19	35.8	3.0
1926	6,115	55	9.2	16	29.0	2.7
1927	5,714	82	14.5	20	24.3	3.5
1928	5,619	106	19.6	25	23.5	4.6
1929	5,228	94	18.8	13	13.8	2.6
1930	5,264	107	20.3	21	19.6	4.0

The increase in incidence during recent years and the corresponding diminution in the fatality rate has been attributed to better notification by medical practitioners, and the 1930 figures are not sufficiently impressive to justify any other explanation. The main purpose of the 1929 Regulations was to secure the co-operation of the medical attendant in using the facilities provided by the Local Authority for treatment and prevention. This was achieved during

1930 to a greater degree than in previous years. A further result of the Regulations has been to increase the number of cases of puerperal fever brought to the notice of the Public Health Department. Practitioners do not hesitate to notify as puerperal "pyrexia" cases of febrile illness which they would not have diagnosed as puerperal "fever." Many of these patients are admitted to hospital and are found to be suffering from septic conditions following child-birth. They are classified as cases of puerperal fever on admission, and would have remained unrecognised but for the procedure initiated by the new Regulations.

The following tables give an analysis of all cases:—

(1) INCIDENCE AND DEATH-RATES ACCORDING TO ATTENDANCE AT BIRTH.

Attendant at Birth.	Births Notified.	Total Cases of Puerperal Fever.	Rate per 1,000 Births.	No. of Deaths.	Fatality Rate.	Death- Rate per 1,000 Births.
Doctor, - - -	1,458	32	21.9	9	28.1	6.2
Doctor and Midwife,	1,200	37	30.8	7	18.9	5.8
Midwife, - - -	1,895	26	13.8	4	15.4	2.1
Institution, - - -	711	9	12.6	1	11.1	1.4
Totals, - - -	5,264	107*	20.3	21†	19.6	4.0

\* 2 abortions and 1 miscarriage are not included in individual totals. In each of these cases the doctor was not consulted until after onset of Puerperal Fever.

† Includes one death, certified as due to Puerperal Sepsis following abortion. This death is classified as O. Pg. = Other Accidents and Diseases of Pregnancy, and not as Puerperal Sepsis.

(2) AGE DISTRIBUTION.

	-20	20-25	25-30	30-35	35-40	40-45	Over 45
Cases, - 4	4	24	27	26	19	6	1
Deaths, - - —	—	3	5	5	7	1	—

(3) NUMBER OF PREGNANCY.

Totals.	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Over 12	Not Stated.
Cases, - 107	29	15	14	6	12	6	3	5	2	3	3	4	2	3
Deaths, - 21	5	4	4	—	4	1	—	1	—	1	1	—	—	—

## (4) DURATION OF PREGNANCY.

In 99 cases the infection followed upon the delivery of viable children, in 4 cases upon miscarriage, and in 3 cases upon abortion.

	Totals.	Full Term.	Premature.	Miscarriage.	Abortion.	Not stated.
Cases,	107	91	8	4	3	1
Deaths,	21	17	3	1	—	—

## (5) NATURE OF BIRTH.

*Natural Delivery.**Instrumental Delivery.*

	No. of Cases.	No. of Deaths.		No. of Cases.	No. of Deaths.
No Abnormality, - - -	42	8	No Abnormality, - - -	15	3
Perineal Tear, - - -	10	2	Perineal Tear, - - -	13	2
Breech, - - -	5	2	Transverse Presentation, - - -	1	1
Recto-Vaginal Fistula, - - -	1	—	Breech Presentation, - - -	1	—
Carneous Mole Expelled, - - -	1	—	Persistent Occipito Posterior, - - -	1	—
Retained Membranes, - - -	1	—	Post-partum Hæmorrhage, - - -	1	1
Placenta Prævia, - - -	1	1	Delayed Labour and Perineal		
Hydramnios, - - -	1	—	Tear, - - -	1	—
Adherent Placenta, - - -	1	—			
Ante-partum and Premature, - - -	1	—			
Abortion—Complete, - - -	3	—			
„ —Incomplete, - - -	1	—			
Miscarriage, - - -	6	1			

*Hospital Treatment.*—99, or 92·5 per cent. of all cases, were admitted to the County Fever Hospitals—the County Hospital, Motherwell, 97; and Lightburn Hospital, 2. The diagnosis was confirmed in hospital in all but one case, which was discharged with a negative diagnosis.

*Bacteriological Findings.*—Specimens for bacteriological examination were obtained from all the cases admitted to the County Hospital, Motherwell.

Blood culture from 75 cases showed the following:—

No growth, - - -	31
Streptococcus negative, staphylococcus albus present, - - -	33
Streptococcus, type beta, present, - - -	4
Streptococcus negative, - - -	4
Streptococcus negative, diphtheroid bacilli present, - - -	1
Staphylococcus aureus present, - - -	2



In 2 cases with streptococci negative, staphylococcus albus present, the blood culture was repeated and gave similar findings in one and no growth in the other.

Uterine cultures from 52 cases showed the following:—

Streptococcus negative, - - - - -	32
Streptococcus, type gamma, present, - - -	4
Hæmolytic streptococci present, - - -	13
Non-hæmolytic short chain streptococci present, - - -	1
Staphylococcus albus present, - - - - -	2

The uterine cultures were repeated in two cases with similar results.

Urine cultures in 3 cases showed *B. coli* present in pure culture.

Pus from a secondary suppurative process was obtained in one case and proved sterile on culture.

Fluid from the pleural cavity in one other case showed hæmolytic streptococci in pure culture.

The bacteriological findings in blood and uterine cultures were similar in 7 cases only. In 2 of these a streptococcus, type beta, was recovered from blood and uterine cultures. In 5, the blood and uterine cultures proved sterile. In 37 others, where blood and uterine cultures were obtained, the bacteriological findings were dissimilar and occurred in various combinations of those results enumerated above.

### Puerperal Pyrexia.

Puerperal pyrexia is defined in the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1929, as "any febrile condition (other than a condition which is required to be notified as puerperal fever under the Infectious Disease Notification Act, 1889), occurring in a woman within twenty-one days after childbirth or miscarriage in which a temperature of 100·4°F. or more has been sustained during a period of twenty-four hours, or has recurred during that period." These regulations came into force on 1st October, 1929, and require notification by a medical practitioner of all cases of puerperal pyrexia which occur in his practice.

During the year the total number of notifications received was 66. Of this number, 53 were received from medical practitioners and 13 from the County Maternity Hospital, Bellshill.

*Requests for Medical Consultation.*—In five instances medical practitioners utilised the services of the consultant appointed by the Local Authority under the Regulations. These patients were all admitted to the County Hospital, Motherwell, for further observation and treatment, and the diagnosis and the condition on discharge were as follows:—

Reg No.	Diagnosis.	Condition.
1	Puerperal Fever	Died
13	„ „	Well
14	„ „	„
35	Puerperal Septicaemia	Died
48	Puerperal Fever	„

*Bacteriological Examination.*—No requests were received for the services of a member of the medical staff to take specimens for bacteriological examination, but material for investigation was sent directly to the County Laboratory by some practitioners.

*Skilled nursing at Home.*—One case was brought to the notice of the Local Authority, where a district nurse visited and nursed a case of puerperal pyrexia in the patient's own home. In all 22 visits were made. Remuneration for the nursing services has meantime been fixed at 2s. 6d. per visit, with a maximum fee of £3 3s. per case.

The following table classifies the cases according to the attendant at birth and shows the incidence per 1,000 births in each case:—

Attendant at Birth.	Number of Births.	Number of Cases of Puerperal Pyrexia.	Rate per 1,000 Births.
Doctor, -	1,458	20*	13·7
Doctor and Midwife, -	1,200	14	11·6
Midwife, -	1,895	20	10·5
Bellshill Hospital, -	711	12	16·9
Totals.	5,264	66	12·5

\* Includes 2 abortions, 3 B.B.A. and 1 case admitted to Bellshill Hospital for removal of adherent placenta. In this latter case the notification of Puerperal Pyrexia was received from Bellshill Hospital.

The cases are classified in the following two tables according to (1) age; (2) number of pregnancy; (3) duration of pregnancy; and (4) nature of birth.

## (1) AGE DISTRIBUTION.

Age Groups.								
			-20	20-25	25-30	30-35	35-40	40-45
Cases,	-	-	6	15	22	9	12	2

## (2) NUMBER OF PREGNANCY.

		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Not Stated.
Cases,	-	22	6	8	6	6	4	2	4	1	—	1	2	4

## (3) DURATION OF PREGNANCY.

		Full Term.	Premature.	Miscarriage.	Abortion.
Cases,	-	55	3	1	7

## (4) NATURE OF BIRTH.

Natural Birth (includes 3 Abortions),	-	-	-	-	45
Instrumental Birth,	-	-	-	-	11
Breech Presentation,	-	-	-	-	2
Adherent Placenta,	-	-	-	-	2
Still-Birth,	-	-	-	-	1
Incomplete Abortion,	-	-	-	-	4
Metrorrhagia (not Puerperal),	-	-	-	-	1

39 or 59 per cent. of the total notifications were admitted to the County Fever Hospitals (Motherwell 38, Lightburn 1), for treatment and the cause of the pyrexia in each case admitted was diagnosed as follows:—Post-partem hæmorrhage, 1; mastitis, 2; incomplete abortion, 1; lobar pneumonia, 1; metrorrhagia (not puerperal), 1; and puerperal fever, 33.

Of the 13 cases notified from Bellshill Maternity Hospital, 3 were transferred to Motherwell Hospital, and are included above:—Puerperal, 2; mastitis, 1. The other ten were cases of mild and transient pyrexia, probably not septicæmic in origin and associated with the following circumstances or puerperal conditions—abortion, 4 (3 incomplete); toxæmia of pregnancy, 1; placenta prævia and ante-partum hæmorrhage, 1; adherent placenta, 1; pyelitis, 1; pyelitis and bronchitis, 1; cardiac disease, 1. All of these were discharged home without any extension of the usual puerperal period in hospital.

Of the remaining 17 cases which were treated at home, the diagnosis in 4 cases was recorded as follows:—Respiratory catarrh,

1; mastitis, 1; engorgement of breasts and constipation, 1; influenza, 1. The diagnosis or probable cause of the pyrexia has not been ascertained in 13. While the recorded data in two of these suggest a mild degree of septicæmia, the pyrexia in all was of short duration, with little interference with the mothers' post-natal recovery.

*Bacteriological Findings.*—Material for culture was obtained from 30 of the cases admitted to the County Hospital, Motherwell. Blood and uterine cultures were made in 16, blood culture and examination of material from secondary lesions in 2, and blood culture alone in 12.

The diagnosis was established as puerperal fever in 26 and the bacteriological findings in these will be considered under puerperal fever. The diagnosis and bacteriological findings in the remaining 4 are grouped as under :—

Established Diagnosis.	Blood Culture.	Uterine Culture	Suppurative Lesion.
Post-partum hæmorrhage following miscarriage.	Streptococci negative. Styaphylococcus albus present.	—	—
Metrorrhagia (not puerperal).	No growth after 48 hours' incubation.	—	—
Mastitis.	do.	—	Streptococcus (type beta) present.
Incomplete Abortion.	do.	Streptococcus (type beta) present.	—

*Fatal Cases.*—7 deaths occurred, 6 in the County Hospital, Motherwell, and 1 in Lightburn Hospital. Death was certified in each case as puerperal sepsis and further reference to them is made under puerperal fever.

### Still-Births.

The total number of notifications of still-births received during the year was 205, and those were received from :—Doctors, 44; midwives, 75; health visitors, 11; and institutions, 75.

Inquiries by the Nurse Health Visitors were made into 199 cases, and the following particulars obtained :—

*Maturity.*—The births occurred at full term in 102 cases, in 32 at the eighth month, in 39 at the seventh month, and 12 at the sixth month; in 14 cases the duration of pregnancy was indefinite.

*Attendance at Birth.*—The attendant at birth was as follows:—Doctor and midwife, 62; doctor alone or with unqualified woman, 33; midwife alone, 31; B.B.A., 4; and institutional cases numbered 69.

*Nature of Confinement.*—The confinement was ascertained to have been normal in 114 cases and abnormal in 85, instrumental delivery taking place in 41 of the latter.

The pregnancy at which still-birth occurred is shown as follows:—

											11th and over.	Not stated.	Total.
Pregnancy, -	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th			
Still-births, -	54	17	25	15	12	23	10	8	7	10	16	2	199

*Previous Still-Births.*—In 154 cases no previous still-births had occurred; in the remaining 45 cases previous still-births had taken place, viz.:—1 in 22 cases; 2 in 9; 3 in 9; 4 in 1; 5 in 1; 7 in 1; 8 in 1; and 10 in 1.

*Employment of Mother.*—Only in 6 cases were the mothers engaged in other than domestic duties.

#### *Age Distribution—*

						Over		
-20	20-25	25-30	30-35	35-40	40-45	45	Unstated.	Total.
9	26	38	46	52	20	4	4	199

#### *Health of Mother during Pregnancy—*

Good, 88; fair, 58; poor, 44; unstated, 9; total, 199.

*Probable Cause of Still-Birth.* — In the total of 199 there were 56 cases in which there was no obvious cause for the still-birth. Of the remainder the following conditions were noted, and might explain the still-birth:—Prematurity, 10; injury at birth, 1; abnormalities of the cord, 11; mal-development of foetus, 5; large child, 3; contracted pelvis, 11; difficult labour, 23; albuminuria and eclampsia, 25; hydramnios, 2; abnormal presentation, 7; accident during pregnancy, 7; ante-partum hæmorrhage, 14; hyperemesis, 1; placenta prævia, 6; separation of placenta, 1; cerebral hæmorrhage, 1; shock, 3; disease of uterus, 1; ill-health of mother, 11.

#### **Ophthalmia Neonatorum and Discharging Eyes.**

*Notified Causes of Ophthalmia Neonatorum.*—Cases, 79; rate per 1,000 births, 15·6; admission to hospital, 13.

Of the total cases reported, 45 (57 per cent.) were notified by doctors; 19 (24 per cent.) by certified midwives; 7 (9 per cent.) by both doctors and midwives; 4 were notified from the County Hospital, Bellshill, and 1 by the Medical Officer of Health, Glasgow. Three cases were not notified. In 30 cases a doctor alone, or with the assistance of a neighbour, was in attendance at the confinement; that is, the disease developed in connection with 2·5 per cent. of the total number of confinements conducted by doctors. Doctors and midwives were present at the birth in 6 cases, representing 0·5 per cent. of the total cases attended by doctors and midwives. A certified midwife alone was present at the birth in 32 cases, which is 1·8 per cent. of the total midwives' cases. Seven cases occurred in institutions, 1 confinement was conducted by an uncertified person, and in 3 instances the confinement took place before the arrival of an attendant.

In the following table the 79 notified cases are classified according to the severity of the disease and to the bacteriological findings:—

	Slight.	Moderate.	Severe.	Total.
Gonococcal, - - - - -	4	3	1	8
Other organisms, - - - - -	24	2	—	26
Pus, but no organisms, - - - - -	14	6	—	20
No pus, no bacteria, - - - - -	7	—	—	7
No swab, - - - - -	18	—	—	18
	67	11	1	79

*Discharging Eyes.*—The number of cases of discharging eyes discovered was 113. 4 cases admitted to the County Hospital, Motherwell. The attendant at birth was as follows:—Doctor alone or with the assistance of a neighbour, 48; doctor and midwife, 8; midwife alone, 39; and B.B.A., 5. In 13 cases the births occurred in institutions.

The severity of the condition and the bacteriological findings are shown below:—

	Slight.	Moderate.	Severe.	Total.
Gonococcal, - - - - -	—	—	—	—
Other organisms, - - - - -	79	2	—	81
Pus but no organisms, - - - - -	20	3	—	23
No pus no bacteria, - - - - -	5	—	—	5
No swab, - - - - -	4	—	—	4
	108	5	—	113



The following table shows the total number of cases of ophthalmia neonatorum and discharging eyes for the past three years, according to districts:—

PARISH.	1928.		1929.		1930.	
	Ophth. Neon.	Disc. Eyes.	Ophth. Neon.	Disc. Eyes.	Ophth. Neon.	Disc. Eyes.
Avondale, - - -	2	1	—	—	1	1
East Kilbride, - - -	1	—	1	—	—	—
Glasford, - - -	—	—	—	—	—	—
Stonehouse, - - -	—	—	—	—	—	1
Blantyre, - - -	9	1	4	3	13	19
Bothwell, - - -	38	11	33	15	10	4
Cambuslang, - - -	26	7	29	18	22	17
Cambusnethan, - - -	15	8	31	20	5	9
Dalserf, - - -	21	12	14	14	3	9
Dalziel, - - -	1	—	1	—	—	—
Hamilton, - - -	7	2	2	1	—	4
New Monkland, - - -	4	1	3	2	2	4
Old Monkland, - - -	12	1	6	4	11	6
Shotts, - - -	38	25	76	50	12	39
	174	69	200	127	79	113

Two cases required special investigation and in one of them impairment of vision occurred. These cases are briefly described in the following notes:—

Baby R., born 3/5/30, the attendant at birth being a certified midwife. No notification of the birth was made and the father of the child was informed of the fact. He notified on 19/5/30. The baby's eyes were stated by the mother to be inflamed within the hours of birth, but no treatment was carried out by the midwife till the second day. Thereafter she treated the eyes with argyrol till the tenth day, but did not notify the case and did not call in medical assistance. The eye condition did not clear up, and on 7/6/30 the child was taken by the parents to their own doctor who sent the patient to the Eye Infirmary where out-patient treatment was given. The Nurse Health Visitor visited the house on the 13/6/30 and found the eye to be discharging freely and the corneae filmed over. On 16/6/30 a visit was made by the Assistant Medical Officer. The eyes showed considerable inflammation of the

lids, with a fair amount of discharge, and with slight filming over the corneae although both eyes opened voluntarily. The case was immediately removed to the County Hospital, Motherwell, where a smear proved the presence of gonococci. Fortunately the eyes cleared up with treatment, no impairment of vision occurring. The midwife concerned was severely reprimanded on her failure to notify the case and to call in medical assistance.

Baby M'B., born 25/2/30. The confinement was conducted by a handywoman. Through a misunderstanding no doctor was present at the actual confinement but attended 12 hours later. The handywoman attended the case for ten days, the doctor also visiting. On the third day there was a slight discharge from the eye which cleared up after bathing with boracic and the doctor's attention was not called to the fact. The Nurse Health Visitor paid her first visit on 6/3/30 and her report shows that the eyes were normal. She re-visited on 18/3/30 and no abnormality was recorded. On 26/3/30 the doctor was called in owing to a severe discharge from baby's eyes. The handywoman was informed and stayed in the house assisting the doctor in carrying out treatment until 29/3/30. The child was found to be suffering from whooping-cough of 14 days' duration. Notification of ophthalmia was made on 31/3/30 and the child was immediately removed to the County Hospital, Motherwell. There the child was found to be suffering from severe ophthalmia neonatorum. An eye smear was positive for the gonococcus and one eye was completely destroyed. The child was also suffering from concurrent whooping-cough and broncho-pneumonia, and died 4/4/30.

Intimation of the occurrence of blindness in this case was made to the Department of Health, as required by their circular letter No. 111, 1921.

### **Ante-Natal Supervision.**

The importance of ante-natal care and supervision is fully appreciated by the Local Authority, and it is hoped that some development of the work may be possible. During the year the activities of the department in this connection may be summarised as follows:—

The Nurse Health Visitors made 3,300 domiciliary visits to expectant mothers, compared with 2,444 in the previous year.

At the Child Welfare Centres, 743 patients attended for the first time, and the total visits numbered 1,307; the total attendances during 1929 being 991.

Ante-natal cases were admitted to the various institutions as follows:—County Hospital, Bellshill, 222; Calderbank Convalescent Home, 101 (including 63 cases transferred from Bellshill Hospital); Blantyre Hospital, 14; and Lanark Hospital, 2.

At the out-patient department, Bellshill Hospital, 774 expectant mothers presented themselves for examination.

*Ante-Natal Albuminuria.*—The total number of expectant mothers under observation in respect of albuminuria was 377, of whom 331 were confined during the year.

The following statement indicates where and by whom the initial examination was made and the number of subsequent examinations.

Examined at	By whom sent.	Number.	Number of Subsequent Ante-natal Examinations.
County Laboratory,	Midwives, - - -	73	36
	Public Health Staff, -	31	35
Ante-Natal Clinics,	Midwives, - - -	28	51
	Brought or sent by expectant mother, -	163	299
Bellshill Hospital,	Expectant mother admitted for confinement,	36	—
		<hr/> 331	<hr/> 421

The number of primiparæ in this total was 80. A history of albuminuria in a previous pregnancy was recorded in 30 cases, while 39 received ante-natal treatment either in Bellshill Hospital, Calderbank or Lanark Homes. 129 were confined in Bellshill Hospital.

The majority of these cases of albuminuria appear to have been transient, easily overcome by simple measures, and unattended by ill-effects to the immediate health of the mother, her confinement or post-natal health.

During the ante-natal period the more severe manifestations of toxæmia occurred in 22 cases as follows:—Abortion 1; ante-partum hæmorrhage, 4; hyperemesis, 4; hyramnios, 1; and eclampsia, 12.

Abnormalities of the confinement were recorded as follows:—Premature births, 5; induction of labour, 10; still-births, 34; delayed labour, 11; perineal tear, 13; extended breech, 1; placenta prævia, 2; prolapse of cord, 1; contracted pelvis, 5; craniotomy, 4; concealed accidental hæmorrhage, 2; adherent placenta, 1.

The number of maternal deaths was 3, the deaths being certified as due to (1) (No. 15 O.Pg., 1930) 2 (No. 14 O.Pg., 1930) 3 (No. 9 P., 1930). In 7 others the puerperium was complicated by puerperal fever, 2; post-partum hæmorrhage, 3; and white leg, 2.

Albuminuria persisted in 71 cases for periods over one month following the confinement and in many of these permanent damage to kidney can be assumed.

Until the end of the year the total number of infantile deaths recorded was 19.

*Confinement Outfits.*—On 15th October a circular letter in the following terms was issued to all medical practitioners and certified midwives in the County intimating that a special accouchement outfit was now available for mothers in necessitous circumstances. These outfits are prepared at the County Maternity Hospital, Bellshill, and are sold at a special price of 4s. 6d. each, or less in exceptional cases. Many mothers make little or no provision for their confinement, and it is hoped that by procuring this outfit they will have the necessary articles in readiness. During the period from October to the end of the year, 86 outfits were supplied either through the local Child Welfare Centres or through the County Hospital, Bellshill:—

“ County Offices,

“ Public Health Department,

“ Hamilton, 15th October, 1930.

“ DEAR SIR OR MADAM,

“ CONFINEMENT OUTFITS.

“ The County Council have authorised the Public Health Department to issue Confinement Outfits to mothers who are unable, for financial reasons, to purchase them through the usual channels. The charge will be 4s. 6d., but in exceptional cases it may be reduced. Mothers should apply to the nearest Child Welfare Centre; to Bellshill Hospital; or to the Public Health Department, Hamilton, and midwives may apply on behalf of their patients, except when a reduction in charge is requested.

“The Outfit contains the following sterilized articles and instructions for their use:—

- 12 Sanitary Towels.
- 4 doz. Swabbing Squares.
- 1 yard Jaconet.
- 2 squares Gauze Tissue, 19 inches by 16 inches.
- 3 Cord Ligatures.
- 6 Cord Dressings.
- 1 doz. Assorted Safety Pins.
- 1 Doctor's Towel.
- 1 Nail Brush.
- 1 piece Soap.

“I trust that in the course of your practice you will encourage mothers, who might not make suitable provision for their confinement, to do so by purchasing this or a similar outfit.

“Yours faithfully,

“J. HUME PATTERSON.”

### Child Welfare Centres.

Table M VII shows the attendances of mothers, infants, and children at the Child Welfare Centres during 1930.

TABLE M VII.

TOTAL ATTENDANCES OF MOTHERS, INFANTS, AND CHILDREN AT THE CHILD WELFARE CENTRES FOR 1930.

Centres.	No. of Sessions.	Total Attendances.		
		Mothers.	Children. Under 1 year.	Over 1 year
Airdrie, - - -	12	375	150	149
Baillieston, - - -	44	2,996	1,702	1,706
Bellshill, - - -	48	4,693	3,393	1,854
Blantyre, - - -	48	2,386	1,034	1,214
Cadzow, - - -	18	294	135	153
Cambuslang, - - -	48	2,679	1,422	1,520
Chapelhall, - - -	21	1,062	574	578
Larkhall, - - -	48	2,904	1,693	1,545
Newarthill, - - -	47	2,585	1,630	1,558
Newmains, - - -	46	2,210	1,374	1,047
New Stevenston, - - -	47	1,930	896	1,099
Shotts, - - -	48	2,798	1,798	1,286
Strathaven, - - -	4	65	46	54
Tannochside, - - -	43	1,871	1,174	1,042
Uddingston, - - -	44	2,396	1,494	1,350
		31,244	18,515	16,155

### Medical Consultations.

Table MVIII shows the number of sessions held, and the number of first visits and re-visits made by mothers, infants, and children.

TABLE M VIII.

MOTHERS.						CHILDREN.			
Centre.	No. of Sessions.	Ante-natal.		Post-natal and others.		Under 1 year.		Over 1 year.	
		1st Visit.	Total.	1st Visit	Total.	1st Visit.	Total.	1st Visit.	Total.
Airdrie, -	12	13	15	5	8	29	42	14	36
Baillieston, -	44	36	62	57	80	115	357	114	245
Bellshill, -	48	132	220	146	284	218	564	237	457
Blantyre, -	48	107	173	162	280	141	306	214	381
Cadzow, -	18	3	3	8	17	22	40	25	42
Cambuslang, -	93	109	217	202	367	189	493	289	596
Chapelhall, -	21	6	6	25	33	42	86	47	99
Larkhall, -	48	75	121	121	217	180	411	143	297
Newarthill, -	47	26	79	51	160	102	443	72	226
Newmains, -	46	68	121	104	218	119	293	125	276
New Stevenston, -	47	20	25	47	97	95	314	84	207
Shotts, -	48	79	133	174	282	151	313	152	313
Strathaven, -	4	—	—	3	3	16	28	20	33
Tannochside, -	43	33	66	55	104	82	256	69	167
Uddingston, -	44	36	66	65	160	131	461	92	225
		743	1,307	1,225	2,310	1,632	4,407	1,697	3,600

*Infants and Children.*—Table MIX shows the illnesses recorded among infants and children, and it should be noted that the figures refer to the number of cases of each disease for which the patient thought it necessary to consult the doctor. These figures do not correspond with the total attendances, since repeated consultations for the same disease represent only one illness, nor, on the other hand, do they correspond with the first attendances, as a child may have had a re-visit for a new ailment, in which event both illnesses were recorded.

*Ante-natal Cases.*—During the year 743 ante-natal cases (representing 1,035 conditions) were seen at the Child Welfare Centres. These are shown in the following table according to Centres and the conditions found.

Of the above cases, 279 were referred for treatment to the ante-natal wards; 105 were referred to the family doctors; and the remaining 359 received treatment at the Clinics.



TABLE M IX.  
ILLNESSES OF INFANTS AND CHILDREN ATTENDING CENTRES.

Centre.	Gastro- Intestinal.	Intestinal Vermin.	Respiratory.	Tuberculosis.	Skin.	Ear, Nose, and Throat.	Eyes.	Teeth.	Rickets.	Hernia.	Phimosis.	Anal. Prolapse.	Club-foot.	Infantile Paresis.	Injury to Limb.	Cleft Palate.	Others.	Total
Airdrie, -	23	—	2	—	5	1	—	—	6	3	3	—	—	—	—	—	9	52
Baillieston, -	108	3	64	—	30	20	23	9	12	7	8	—	—	2	3	—	35	324
Bellshill, -	201	10	71	7	51	27	36	17	39	11	4	—	—	6	5	—	50	534
Blantyre, -	136	6	61	5	57	25	17	20	41	16	8	2	1	2	3	—	39	439
Cadzow, -	21	1	6	—	3	4	4	3	5	2	1	—	—	—	1	—	2	53
Cambuslang, Chapelhall, -	163	16	69	12	88	32	33	26	67	10	20	—	1	2	2	1	44	586
Larkhall, -	126	8	57	6	46	27	18	10	5	14	15	—	1	1	2	—	38	374
Newarthill, -	100	4	36	5	23	19	13	3	14	1	12	—	1	—	—	—	16	247
Newmains, -	109	1	20	4	16	17	8	8	17	6	7	—	1	—	—	—	33	247
New Stevenston, -	73	3	36	1	30	20	20	7	8	2	8	1	—	—	—	—	20	230
Shotts, -	144	6	18	10	32	35	13	12	10	14	7	—	3	3	2	1	24	334
Strathaven, -	16	2	3	—	—	5	1	1	5	—	—	—	—	—	—	—	39	72
Tannochside, Uddingston, -	77	2	35	4	25	10	8	6	8	5	6	—	—	2	—	—	13	201
	106	5	46	1	39	10	13	9	25	5	5	—	1	—	—	—	18	283
	1,441	68	537	56	457	259	217	131	263	100	105	3	9	18	19	2	394	4,079

TABLE M X.

## ANTE-NATAL CASES.

CENTRE.	Normal.	Contracted Pelvis.	Albuminuria.	Hyperemesis.	Hæmorrhage and Threatened Abortion.	Hydramnios.	Leucorrhœa.	Varicose Veins and Hæmorrhoids.	Respiratory.	Cardiac.	Gastro-Intestinal.	Dental Caries.	Abdominal Pain.	Previous Abnormality.	Debility.	Others.	Total.
Airdrie, -	6	-	-	-	-	-	-	1	-	-	-	-	-	-	5	1	13
Baillieston, -	13	-	2	4	1	-	1	-	6	-	-	1	-	4	-	4	36
Bellshill, -	44	1	7	3	4	-	4	19	12	3	11	10	7	25	12	21	183
Blantyre, -	26	3	26	4	6	1	2	16	8	7	9	2	5	5	15	9	144
Cadzow, -	1	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	3
Cambuslang, -	26	2	28	4	7	-	2	13	3	5	4	8	9	6	6	5	128
Chapelhall, -	1	-	2	-	-	-	-	1	-	-	-	1	1	-	-	-	6
Larkhall, -	25	2	7	4	5	-	10	5	4	3	9	1	10	7	6	4	102
Newarthill, -	2	1	1	3	1	-	1	5	4	-	5	3	3	4	2	2	37
Newmains, -	20	-	2	3	1	-	4	6	1	-	12	19	5	19	10	15	117
New Stevenston, -	6	-	1	2	1	-	2	1	3	1	2	2	2	1	1	2	27
Shotts, -	23	4	10	3	2	-	6	8	5	1	14	18	6	17	11	5	133
Tannochside, -	11	-	2	-	3	-	5	3	3	2	6	4	3	3	2	4	51
Uddingston, -	14	-	3	-	1	-	-	11	3	1	2	3	1	9	2	5	55
	218	13	91	30	32	1	38	89	52	23	74	72	53	100	72	77	1,035

*Post-natal and other Consultations.*—Table M XI shows the post-natal gynæcological and other consultations which were made at the various Centres:—

TABLE M XI.

## POST-NATAL AND OTHER CONSULTATIONS.

CENTRE.	POST-NATAL.										GYNAECOLOGICAL.						OTHERS.										
	Uterine Displacement.	Cervical Tear.	Leucorrhœa.	Disease of the Breast.	Varicose Veins.	Albuminuria.	Gastro-Intestinal.	Respiratory.	Dental.	Anæmia and Debility.	Others.	Total.	Uterine Displacement.	Cervical Tear.	Endometritis.	Menstruation.	Ovarian Pain.	Others.	Total.	Respiratory.	Gastro-Intestinal.	Cystitis and Nephritis.	Dental.	Anæmia and Debility.	Others.	Total.	
Airdrie, .	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1	1	1	1	-	4
Baillieston, .	-	-	-	3	1	2	-	-	10	8	3	27	-	-	-	2	-	1	1	3	-	2	16	2	6	6	26
Bellshill, .	-	-	7	6	5	1	10	9	44	43	31	156	1	-	-	16	-	7	7	24	-	-	2	4	-	4	10
Blantyre, .	-	-	1	4	5	9	10	6	21	61	9	126	5	2	2	14	2	7	7	32	1	3	2	26	9	14	55
Cadzow, .	-	-	1	-	-	-	1	1	-	2	-	5	-	-	-	-	-	-	-	-	-	-	1	-	2	3	
Cambuslang, .	6	2	3	1	2	7	6	1	23	38	10	99	4	5	1	8	1	3	3	22	6	11	3	57	21	20	118
Chapelhall, .	-	-	-	-	-	1	3	-	10	7	6	27	-	-	-	1	-	-	-	1	-	-	-	-	1	1	2
Larkhall, .	1	1	11	5	1	4	5	5	6	22	9	70	4	-	3	9	2	-	-	18	1	5	8	19	8	20	61
Newarthill, .	-	1	4	4	1	1	3	7	14	11	4	50	-	1	2	7	-	1	1	11	1	1	1	3	1	2	8
Newmains, .	-	5	3	-	1	1	8	1	16	29	10	74	1	-	2	5	1	4	13	3	1	2	23	5	10	44	
New Stevenston, .	-	1	6	1	2	-	1	-	2	12	6	31	-	-	1	2	-	1	4	-	-	-	2	11	2	12	27
Shotts, .	1	3	2	3	1	6	5	2	35	26	13	97	6	3	2	10	3	2	26	1	3	4	56	5	16	85	
Strathaven, .	-	-	1	-	1	-	-	-	-	-	-	2	-	1	-	-	-	-	1	-	-	-	-	-	1	1	
Tannockside, .	1	-	6	2	2	-	5	3	13	7	20	59	1	-	-	4	-	-	5	-	1	-	7	-	1	9	
Uddingston, .	1	10	5	3	1	1	4	3	18	20	16	77	1	-	-	8	-	-	9	-	-	1	2	-	-	3	
	10	13	55	32	23	34	61	38	212	286	137	901	23	12	13	86	9	26	169	14	27	25	226	55	109	456	

### Treatment at Child Welfare Centres.

The following statements give a record of the work carried out at Cambuslang, Blantyre, and Shotts, and also at the Out-patient Department at Calderbank House:—

#### MINOR AILMENTS.

##### MOTHERS.

	Cambuslang.	Blantyre.	Shotts.
Anæmia, - - -	38	31	3
Skin Disease, - - -	—	8	—
*Others, - - -	—	26	4
	<u>38</u>	<u>65</u>	<u>7</u>
Re attendances, - - -	560	351	114

\* This group includes dressings, douchings, eye diseases, &c.

##### CHILDREN.

	Cambuslang.	Blantyre.	Shotts.
Skin. - - - -	—	39	14
Eyes. - - - -	—	21	4
Ears, - - - -	—	3	4
*Others, - - - -	—	53	4
	<u>—</u>	<u>116</u>	<u>26</u>
Re-attendances, - - -	—	266	260

\* This group includes dressings, threadworms, stomatitis, umbilical hernia, &c.

### Artificial Sunlight Treatment.

	MOTHERS.		CHILDREN.	
	New Cases.	Re-attendances.	New Cases.	Re-attendances.
Blantyre, - - -	28	299	39	378
Cambuslang, - - -	34	502	59	706
Shotts, - - -	7	98	27	451
Calderbank House, -	8	349	32	807
	<u>77</u>	<u>1,248</u>	<u>157</u>	<u>2,342</u>

### Treatment of Squint.

The work in connection with the treatment of squint cases is summarised in the following statement:—

Cases Examined at	First Cases.	Spectacles Prescribed.	Re-examined.
Bellshill, - -	23	22	7
Blantyre, - -	6	6	5
Cambuslang, -	13	11	3
Shotts, - -	12	8	—
	53	47	15

### Dental Treatment—Mothers and Children.

During the year 595 mothers and 158 children were recommended for dental treatment, and of these 483 mothers and 134 children attended the dental surgeons appointed by the Local Authority:—

Centre.	MOTHERS.		CHILDREN.	
	Recommended for Treatment.	Attended Dentist.	Recommended for Treatment.	Attended Dentist.
Airdrie, - -	2	2	1	—
Baillieston, -	33	27	3	3
Bellshill, - -	59	41	19	14
Blantyre, - -	72	57	26	23
Cadzow, - -	2	2	1	1
Cambuslang, -	146	132	42	35
Chapelhall, -	12	11	—	—
Larkhall, - -	36	23	6	6
Newarthill, -	15	11	6	3
Newmains, - -	45	41	14	14
New Stevenston, -	17	16	6	5
Shotts, - -	101	80	16	15
Strathaven, -	9	8	2	1
Tannochside, -	25	16	2	1
Uddingston, -	21	16	14	13
	595	483	158	134

### Ear, Nose, and Throat Ailments.

No. of Sessions.	No. of 1st Visits.	No. of Re-visits.	Operations recommended.	Operations performed.
23	121	70	77	71

The operations performed were as follows:—

Tonsils and Adenoids, ... ..	65
Tonsillectomy and Mastoid operation, ...	2
Tonsillectomy and Antral Puncture, ... ..	1
Resection of Septum, ... ..	1
Incision of M.T., ... ..	2
Total, ... ..	<u>71</u>

The difference between the number of operations recommended and operations performed is accounted for as follows:—

Operation refused, ... ..	3
Awaiting operation, ... ..	2
Left district, ... ..	1
	<u>6</u>

In addition, two patients received special examinations, namely:—  
Chloroform examination, 1; foreign body removed from nose, 1.

Three patients were admitted directly to Institution for tonsils and adenoids operation, two being from the Upper Ward.

Two patients receiving in-patient treatment in Calderbank House also had operation—tonsils and adenoids, 1; incision of M.T., 1.

Attendances at the Clinic were recommended from the following sources:—

Baillieston Child Welfare Centre, ... ..	7
Bellshill do., ... ..	16
Blantyre do., ... ..	11
Cadzow do., ... ..	1
Cambuslang do., ... ..	10
Chapelhall do., ... ..	5
Larkhall do., ... ..	12
Newarthill do., ... ..	6
Newmains do., ... ..	12
New Stevenston, do., ... ..	2
Tannochside, do., ... ..	3
Uddingston, do., ... ..	4
Shotts, do., ... ..	22
Upper Ward, ... ..	1
Medical Practitioners, ... ..	1
Public Health Staff, ... ..	8



### Educational Work.

The following table shows the demonstrations and lectures which were given at the various Centres during the year:—

CENTRES.	DEMONSTRATIONS.		LECTURES.
	Cookery.	Dress-making.	
Baillieston, -	11	13	—————
Bellshill, -	10	24	Good housekeeping. Home management. Temperance. Child welfare work. Preservation of Health. Cleanliness. Rickets. Home conditions. Don'ts.
Blantyre, -	11	12	Infant bedmaking. Bathing of baby. Albumen water.
Cambuslang, -	11	20	Infant feeding. Some popular fallacies <i>re</i> infants. Vomiting and diarrhoea. Constipation in children. Colic and flatulence in infants.
Chapelhall, -	8	10	Child welfare centre work.
Larkhall, -	11	12	Care of mother and infant. House-keeping.
Newarthill, -	11	12	Breast-feeding advantages. Rickets. Pregnancy. Ante-natal care and supervision.
Newmains, -	12	12	Tuberculosis in children. Treatment of thrush. Albuminuria. Diet for nursing mothers. Summer diarrhoea. Test feeding. Scabies. Infectious diseases and childhood. Benefits of maternity bundles. Ante-natal hygiene. Swabbing and douching eyes.
New Stevenston, -	12	12	—————
Shotts, - -	11	12	Bandage for varicose veins. Treatment of thrush. Abdominal binder. Tuberculosis in children. Ante-natal albuminuria. Diet for nursing mothers. Summer diarrhoea. Infectious diseases. Test feeding. Ante natal hygiene. Benefits of maternity bundles.
Tannochside, -	12	11	Prevention of rickets. Treatment of aural discharge. Why baby cries. Rickets
Uddingston, -	11	10	Infant feeding. Prevention of rickets. Value of breast-feeding. Summer diarrhoea. Diarrhoea and constipation. Baby's digestion.

## Necessitous Cases.

The number dealt with monthly and the annual figures and estimated expenditure for each Centre are shown below:—

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
490	527	537	457	378	359	352	379	359	342	365	442	4,987

	No. of Cases.	Amount.		No. of Cases.	Amount.
Airdrie, ...	505	£195 8 8	Larkhall, ...	439	£200 15 4
Baillieston, ...	421	157 10 11	Newarthill, ...	179	79 12 4
Beilshill, ...	828	345 7 9	Newmains, ...	258	97 7 9
Blantyre, ...	732	286 5 11	New Stevenston, ...	201	92 1 7
Caulzow, ...	134	67 18 4	Shotts, ...	188	83 7 7
Cambuslang, ...	272	113 5 11	Strathaven, ...	101	36 12 3
Chapelhall, ...	154	71 14 1	Tannochside, ...	283	112 18 8
			Uddingston, ...	292	130 0 2
	<u>3,046</u>	<u>£1,237 11 7</u>		<u>1,941</u>	<u>£832 15 8</u>
Total Cases, ...	...	...		4,987	
Total Expenditure, ...	...	...		£2,070 7s. 3d.	

For purposes of comparison the expenditure since 1920 is shown below:—

Year.	No. of Cases.	Expenditure.
1920	956	£860 0 0
*1921	53,996	37,624 8 3
1922	14,961	9,417 0 0
1923	5,582	3,033 17 2
1924	4,432	2,570 18 9
1925	8,281	4,476 17 3
*1926	67,625	18,653 9 8
1927	15,350	7,652 12 2
1928	8,723	4,202 3 0
1929	6,640	2,987 7 5
1930	4,978	2,070 7 3

\* Years of industrial depression.

## Midwives (Scotland) Acts, 1915 and 1927.

*Practising Midwives.* — During the year 173 certified midwives (124 resident within and 49 resident outwith the Middle Ward) notified their intention to practise—a decrease of 14 compared with the number last year.

The qualifications of the practising midwives are as follows:—

	1925	1926	1927	1928	1929	1930
Certificate of the Central Midwives Board (Scotland), ... ..	53	53	54	48	57	57
Certificate of the Central Midwives Board (England), ... ..	3	4	4	4	4	4
Trained and certified by the Royal Maternity Hospital (Glasgow), ...	6	6	6	7	6	4
Trained and certified by the Royal Maternity Hospital (Edinburgh),...	1	1	1	1	1	1
Trained and certified by the Rotunda Hospital (Dublin),... ..	—	—	—	1	1	1
In <i>bona-fide</i> practice and certified under the Act, ... ..	159	153	142	133	118	106
	222	217	207	194	187	173

The above table shows that there are now 67 trained midwives, and 106 untrained midwives, as compared with 69 and 118 respectively in 1929.

The number of practising midwives according to parish of residence is as follows:—

Parish.	Number of Midwives.	Parish.	Number of Midwives.
Avondale, ... ..	3	Dalserf, ... ..	18
East Kilbride, ... ..	—	Dalziel, ... ..	—
Glasford, ... ..	3	Hamilton, .. ..	1
Stonehouse, ... ..	5	New Monkland, ...	9
Blantyre, ... ..	9	Old Monkland, ...	8
Bothwell, ... ..	36	Shotts, ... ..	8
Cambuslang, ... ..	12	Midwives resident outwith District, ...	49
Cambusnethan, ... ..	12		
	80		93
	Total, 173		

*Change of Address.*—The changes of address of 21 midwives were reported to the Board.

*Deaths.*—Seven midwives died during the year, the numbers on the Roll being 21, 180, 1,967, 1,367, 1,308, 5,930, and 7,255.

*Inspection of Midwives.* — The routine inspection of midwives resident in the District numbered 536. In addition, 216 special inspections were made on account of non-compliance with the Rules, while a few were made for tuitional purposes. In connection with the possession of midwifery outfits, 3 midwives were without bags and 5 without linings; 1 was without a nail brush; 1 without scissors; and 5 had not supplied themselves with thermometers. The reports of the Inspectors showed that in 16 instances temperature charts were incorrectly kept.

*Disciplinary Cases.*—During the year two midwives were reported to the Central Midwives Board for breach of the Rules:—

(1) In August, Mrs. W., midwife, was engaged to attend a confinement, by the patient's mother. She did not visit the patient until 14/9/30, when the relatives called her to the case. The midwife was of opinion that patient was not in labour, but did not examine, although told by the patient's friends that they thought the membranes were ruptured. There was no change for three days, until 18/9/30 and 19/9/30, on which days the midwife procured a pill from a medical practitioner for sleeplessness. On 20/9/30 the midwife thought the patient might be in labour, although not yet making an examination. The doctor was sent for about 5 a.m. on 21/9/30, and ordered patient's removal to hospital, where she died two days later, the certified cause of death being "Delayed Labour and Contracted Pelvis: Obstetric Shock after Craniotomy."

The case was reported to the Central Midwives Board as a contravention of the Rules by the midwife, on the following grounds:—

- (a) She failed to interview her patient when engaged to attend the confinement.
- (b) When called to the case she was aware that the mother was suffering from an abnormal condition of pregnancy, and failed to summon medical assistance in the manner prescribed by the Rules.
- (c) She considered it desirable to administer a drug other than a simple aperient, and failed to summon medical assistance as prescribed by the Rules.

After appearing before the Central Midwives Board, the midwife was warned and admonished to adhere strictly to the Rules of the Board in future.

(2) Mrs. M. was engaged to attend a confinement on 2/12/20. The husband of the patient met the midwife as she was boarding a bus, and asked her to see his wife. The midwife referred him to the doctor, who visited and prescribed treatment for the patient. On the following day the midwife completed a record of sending for medical assistance, and dated it 2/12/29, the time of sending being given as 9 p.m. The midwife later stated that she was not even in the village on the evening of the date on the form.

The facts were reported to the Central Midwives Board, who, after consideration, issued a warning to the midwife against such irregularities, and pointed out that on any further complaint being received she would be summoned to appear before the Board.

Three midwives were interviewed and 15 letters issued on account of minor offences.

*Attendance at Confinement.*—The number of births notified as having been attended by certified midwives was 1895, which represents 36.0 per cent.

*Attendance by Unqualified Persons.*—In 53 instances a handy-woman was found to have conducted the confinement. The information supplied in the special reports made it clear that no further action was necessary in 42 cases, as the attendances had been given in genuine emergency and skilled assistance called at the earliest opportunity. There being apparent irregularity in the remaining 11 cases, 10 of the persons involved were interviewed by the Medical Officer of Health, and requested to explain the circumstances under which they had attended. A warning letter was issued in one instance.

*Infantile Deaths.*—The total number of infantile deaths was 431. In 124 instances the deaths occurred in infants during the first ten days, and 24 of these were in the practice of certified midwives. The causes of deaths were as follows:—Atelectasis, 4; circulatory disease, 1; infantile convulsions, 7; injury at birth, 5; prematurity, 62; debility, 29; congenital malformation, 14; bronchitis, 1; and liver disease, 1.

*Ophthalmia Neonatorum.* — There were 79 notified cases of ophthalmia, 32 of these occurring in the practice of midwives. In addition, 113 cases of discharging eyes were detected by the Health Visiting Staff, and 39 of these occurred among midwives' cases.

*Puerperal Fever and Pyrexia.*—The total number of cases notified was 173, and 46 of these occurred in the practice of midwives. There were 20 deaths, 4 of which related to midwives' cases.

*Still-Births.* — The total number of still-births was 205, 31 of these being midwives' cases.

*Examination of Urine.*—198 specimens of urine were sent to the County Laboratory for examination by 13 certified midwives, 102 giving a positive result. At the Child Welfare Centres 550 cases were submitted by certified midwives, and of these 139 proved positive.

*Liability to be a Source of Infection.*—41 notifications were received from midwives as follows:—Scarlet fever, 6; puerperal fever, 22; measles, 3; rise in temperature, 3; diphtheria, 1; puerperal pyrexia, 5; and sapræmia, 1.

*Suspension from Practice.*—The midwife referred to in last year's annual report, who had been suspended from practice on account of her liability to be a source of infection from pulmonary tuberculosis, died on 11th September. Compensation at the rate of 25s., per case on a basis of eight cases per quarter, continued to be paid by the Local Supervising Authority until the date of her death.

*Form of having laid out a Dead Body.*—2 notifications were received in respect of mothers. One woman died from cardiac shock, and 1 from cardiac failure at childbirth.

*Provision of Certified Midwives in Necessitous Cases.*—The cost of the attendance of a certified midwife was met by the Local Authority in 9 cases, the fee paid in 8 of these being 25s. per case, and in 1, 15s.

*Compensatory Fees.*—In 24 instances where a midwife called a medical practitioner to her assistance, the patient was removed to hospital, and in each case a compensatory fee of 10s., was paid to the midwife.

*Compensation.*—A midwife who had been suspended by the Local Authority in order to prevent the spread of infection, received compensation amounting to £5 for the loss of four cases.



*Medical Assistance.*—Medical aid was sought by midwives in 659 instances, an increase of 140 compared with the previous year. This represents 35·9 per cent. of the births attended by certified midwives. The conditions for which assistance was obtained are detailed in Table M XIII.

*Payment of Doctors' Claims.*—The claims sent in by medical practitioners under Section 22 of the 1915 Act, as amended by Section 4 of the 1927 Act, numbered 416, an increase of 169 compared with last year, representing 63·1 per cent. of the cases to which they had been called and amounted to £623 1s.—£20 4s., or 3·1 per cent. of the total expenditure, was recovered. In the following table there are set forth the number of accounts dealt with since the Act came into operation and the total sums recovered :—

TABLE M XII.

Year	Births attended by Midwives	Medical Assistance Forms received	Percentage of Midwives' cases requiring Medical Assistance	Doctors' Claims		Amount of Account			Amount recovered			Per cent.
				No.	per cent.	£	s.	d.	£	s.	d.	
1917	2,486	170	6·8	5	2·9	4	9	0	2	9	6	55
1918	2,789	158	5·6	10	6·3	6	14	0	2	3	6	32
1919	2,794	167	5·9	14	8·3	10	5	0	2	0	0	19
1920	3,188	146	4·5	10	6·8	6	0	0	2	7	0	39
1921	2,905	189	6·5	12	6·3	10	0	0	—	—	—	—
1922	3,104	228	7·3	33	14·4	38	13	3	1	0	0	3
1923	2,856	313	10·9	51	16·2	61	17	6	3	1	0	4
1924	2,730	465	17·0	121	26·0	139	3	6	18	12	6	13
1925	2,659	492	18·5	196	39·8	237	5	3	17	8	0	—
1926	2,346	620	26·4	255	41·1	379	3	3	15	1	9	4
1927	2,195	504	22·9	391	77·5	501	15	9	34	0	0	6
1928	2,124	548	25·8	381	69·5	502	16	0	32	2	6	7
1929	1,906	519	27·2	247	47·5	382	10	0	18	13	0	4
1930	1,836	659	35·9	416	63·2	623	1	0	20	4	0	3
						£2,903 13 6			£169 2 9			5

*Intention to Practise.*—A list of the midwives who notified their intention to practise during the year was forwarded to the Board on 10th February, 1931.

TABLE M XIII.

Records of sending for medical assistance classified according to parish and the conditions requiring medical aid. The totals are also shown for each year since 1926.

Reasons for Medical Assistance.	PARISH.											Total during					
	Avondale.	Glasford.	Blantyre.	Bothwell.	Cambuslang.	Cambusnethan.	Dalsert.	Dalziel.	Hamilton.	New Monkland.	Old Monkland.	Shotts.	1930	1929	1928	1927	1926
<i>Mother:—</i>																	
Prolonged Labour, -	1	—	72	57	20	1	38	—	7	23	1	2	222	183	181	147	173
Contracted Pelvis, -	—	—	1	7	—	—	—	—	—	—	—	—	8	13	12	4	12
Uterine Inertia, -	—	—	1	35	1	—	—	—	—	3	3	1	44	37	23	34	58
Abnormal																	
Presentation, -	—	—	14	17	4	—	3	—	1	1	5	2	47	50	35	34	57
Prolapse Cord, -	—	—	—	3	—	—	—	—	—	—	1	—	4	1	2	2	4
Placenta Prævia, -	—	—	—	1	1	—	—	—	1	—	—	—	3	1	3	—	4
Ante-Partum																	
Hæmorrhage, -	—	—	4	11	1	—	—	—	—	2	—	—	18	6	22	18	25
Post-Partum																	
Hæmorrhage, -	—	—	1	2	—	—	—	—	—	—	—	1	4	5	4	12	7
Hæmorrhage																	
(unqualified), -	1	—	—	2	3	—	—	—	—	—	—	2	8	4	9	—	—
Retained Placenta, -	1	—	3	5	2	—	—	—	—	—	1	—	12	13	23	13	20
Hydræmnios, -	—	—	2	3	1	—	—	—	—	—	—	—	6	4	2	—	1
Eclampsia and																	
Convulsions, -	—	—	1	1	—	—	—	—	—	—	—	—	2	3	3	5	5
Albuminuria, -	—	—	6	3	33	—	—	—	—	—	—	—	42	11	13	16	17
Torn Perineum, -	—	—	15	22	14	—	1	1	4	5	3	1	66	68	84	73	81
Abortion (actual or																	
threatened), -	—	—	12	—	1	—	—	—	—	—	—	—	13	13	12	8	12
Pyrexia, -	—	2	8	8	4	—	3	—	—	1	2	—	28	14	13	20	9
Puerperal Sepsis, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Phlebitis, -	—	—	1	—	—	—	—	—	—	—	—	—	1	2	—	3	—
Influenza, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Debility and extreme																	
weakness, -	—	—	3	1	2	—	6	—	—	—	—	—	12	13	27	15	12
Varicose Veins, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mastitis, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—
Edema, -	—	—	4	1	—	—	—	—	—	—	—	—	5	2	1	—	—
Other defined causes,	—	—	14	4	—	—	2	—	—	—	—	—	20	11	12	21	21
Ill-defined causes, -	—	—	8	3	2	—	1	—	2	13	3	—	32	10	10	15	17
<i>Child:—</i>																	
Still-Birth, -	—	—	3	3	3	—	—	—	1	1	—	—	11	10	10	14	17
Premature Child, -	—	—	6	1	1	—	—	—	1	1	1	—	11	21	14	17	20
Ophthalmia																	
Neonatorum, -	—	—	4	3	2	—	—	—	—	—	1	—	10	1	3	11	23
Discharging Eyes, -	—	—	2	3	5	—	1	—	—	—	—	—	11	9	12	2	—
Congenital																	
Malformation, -	—	—	2	—	2	—	—	—	—	—	—	—	4	2	—	2	3
Anencephalus, -	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—
Spina Bifida, -	—	—	1	—	—	—	—	—	—	—	—	1	2	3	2	—	—
Hare Lip, -	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—
Convulsions, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Debility and extreme																	
weakness, -	—	—	1	—	—	—	—	—	—	—	—	—	1	3	3	7	4
Hydrocephalus, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Skin Condition, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—
Death of Infant, -	—	—	—	—	1	—	—	—	—	—	—	—	1	1	1	—	—
Other Causes, -	—	—	4	3	3	—	—	—	—	—	—	—	10	4	6	9	14
	3	2	193	199	106	1	55	1	17	50	22	10	659	520	548	504	620

**County Maternity Hospital, Bellshill.**

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REPORT BY THE PHYSICIAN-SUPERINTENDENT,  
HENRY JAMES THOMSON, M.D.

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The number of patients remaining in hospital on 1st January, 1930, including 12 babies born in hospital, was 35, and the patients admitted, including 638 babies born alive in the institution, and 26 post-natal babies numbered 1830. There were left in the hospital at the end of the year 47 patients, including 15 babies born in hospital. Of the 704 confinements 638 infants were born alive (19 were twin births), and 85 were still-births.

The report deals with discharges under the following headings:—

(1) Delivered at or near full term, ... ..	700
(2) Delivered before admission, ... ..	40
(3) Discharged undelivered, ... ..	220
(4) Cases of abortion, ... ..	160
(5) Gynæcological cases, ... ..	38
(6) Babies born in hospital (including S.B.), ...	719
(7) Babies born before admission, ... ..	25

(1) Abnormal and complicated cases of confinement show a large increase while normal cases show a proportionate decrease. The chief increase is in cases of eclampsia and albuminuria.

(2) Many of the post-natal cases were admitted on account of complications of the puerperium.

(3) Those discharged undelivered, received treatment for pre-natal complications, and when recovered were allowed to go home. 32 cases not in labour were discharged.

(4) Cases of abortion have increased considerably.

(5) Gynæcological cases are treated when accommodation permits. 38 cases were treated during the year.

(6) The still-birth rate is higher than in former years. The increase in complicated confinements has affected the still-birth rate.

(7) Babies born before admission, were admitted with the mother if the baby was being breast fed.

The average duration of residence of all cases discharged was 11·36 days. Many cases are sent to the Convalescent Home, Calderbank, on the 5th to 8th day of the puerperium. This reduces the average days in residence appreciably.

The adult deaths numbered 19, equal to a rate of 1·64 per cent. In cases of confinement the rate was 1·5 per cent., while deaths occurring before delivery account for a rate of 3·6 per cent.

Booked cases numbered 443, and 715 emergency cases were treated. The deaths in booked cases represent a rate of 0·22 per cent., and in emergency cases 2·5 per cent.

All cases, with a very few exceptions, are admitted and discharged by ambulance.

TABLE M I.

	In Residence, 1/1/30	Admitted.	Discharged.	Died.	In Residence, 31/12/30
Confinements,	13	704	691	9	17
Post-natal, -	1	40	38	2	1
Ante-natal, -	5	222	212	8	7
Abortions, -	4	162	160	—	6
Gynæcological,	—	38	38	—	—
	23	1,166	1,139	19	31
Babies born in Hospital, -	12	638	600	35	15
Babies born be- fore admission,	—	26	25	—	1
	35	1,830	1,764	54	47

Table M II shows the condition of the patients on discharge, and also those who died.

TABLE M II.

	Total.	To other Institutions	Improved.	Well.	Died.
Confinements,	700	79	—	612	9
Post natal, -	40	6	—	32	2
Ante-natal, -	220	71	8	133	8
Abortions, -	160	48	1	111	—
Gynæcological,	38	7	4	27	—
	1,158	211	13	915	19

The number of complicated confinements has increased considerably, as shown by the figures on the following page. It is evident that insufficient ante-natal work is being carried out within the County.

It is rather surprising that the incidence of puerperal sepsis in complicated cases stands at a lower level, under hospital treatment, than cases that are conducted at home; one would expect it to be otherwise. See report under "Maternity and Child Welfare."

#### ABNORMAL OR COMPLICATED CASES OF CONFINEMENT (363).

Albuminuria, - - - - -	95	Oedema in 3 cases generally without	
Albuminuria with Oedema, - - -	26	other symptoms, - - - - -	8
Albuminuria with Heart Disease, -	5	Nervous Disease, - - - - -	1
Albuminuria with Hyperemesis		Cerebellar Tumour, - - - - -	1
Gravidarum, - - - - -	4	Post Encephalitis Lethargica, - -	1
Albuminuria and Contracted Pelvis,	11	Chorea, - - - - -	1
Contracted Pelvis, - - - - -	28	Insanity, - - - - -	1
Eclampsia, - - - - -	28	Pulmonary Disease—	
External Accidental Hæmorrhage,	30	Tuberculosis, - - - - -	3
Concealed Accidental Hæmorrhage,	2	Pneumonia, - - - - -	2
Placenta Prævia, - - - - -	15	Bronchitis, - - - - -	1
Hyperemesis Gravidarum, - - -	3		— 6
Pyelitis, - - - - -	13	Mumps, - - - - -	1
Septic Infections—		Paratyphoid, - - - - -	1
Discharge Purulent, - - - - -	7	Others, - - - - -	11
Gonorrhœa, - - - - -	2	Ophthalmia Neonatorum, - - -	4
Phlebitis, - - - - -	3	Delayed Second Stage of Labour, -	16
	— 12	Abnormal Presentations without	
Hemiplegia, - - - - -	1	other complications, - - - - -	30
Heart Disease, - - - - -	5		—
Hydramnios, - - - - -	3		363

In the above series there were:—

Normal Deliveries, - - - - -	225	Craniotomy after admission, -	5
Manual or Assisted Delivery with-		Craniotomy, - - - - -	5
out Instruments, - - - - -	10	Induction of Labour—	
Version, - - - - -	8	Normal Delivery, - - - - -	32
Forceps, - - - - -	65	Forceps, - - - - -	3
Failed Forceps before admission—		Cæsarean Section, - - - - -	2
Normal after admission, - - -	4		—
Forceps after admission, - - -	4		363

Discharged Well, ...	...	...	...	...	...	310
To Other Institutions, ...	...	...	...	...	...	44
Died, ...	...	...	...	...	...	9
						363

TABLE M IV.

## POST-NATAL CASES.

There were treated in the Institution during the year 40 post-natal cases, and the conditions for which these were admitted were as follows :—

Adherent Placenta and Insanity, -	1	Perineal Laceration, - - -	2
Adherent Placenta and Post-partum		Post-partum Hæmorrhage, - -	3
Hæmorrhage, - - - -	1	Pyelitis, - - - -	1
Albuminuria, - - - -	3	Retroflexion of Uterus, - - -	1
Eclampsia, - - - -	7	Rupture of Uterus, - - -	1
For confinement, but birth before		Sub-involution, - - - -	2
arrival, - - - -	16		<hr/>
Hemiplegia, - - - -	1		40
Pelvic Cellulitis, - - - -	1		<hr/>

*Results.*—

Discharged well, ... ..	32
To other Institutions, ... ..	6
Died, ... ..	2
	<hr/>
	40
	<hr/>

Ante-natal cases numbered 220.

Greater advantage is being taken of the accommodation provided by the Local Authority for the treatment of pre-natal conditions, but it is evident that patients do not send for medical assistance early enough.

The causes of death were :—

Acute Toxæmia of Pregnancy, ... ..	2
Concealed Hæmorrhage, ... ..	1
Eclampsia, ... ..	2
Placenta Prævia, ... ..	1
Pneumonia, Multiple Cysts of Brain, ... ..	1
Tubercular Meningitis, ... ..	1
	<hr/>
	8
	<hr/>



## ANTE-NATAL CASES (220).

Abdominal Pain, due to Adhesions,	3	Heart Disease,	- - - -	3
Abscess of Bartholins Gland,	- 2	Hemiplegia,	- - - -	1
Albuminuria,	- - - - 26	Hydramnios,	- - - -	2
Albuminuria and Hyperemesis,	- 9	Hyperemesis,	- - - -	32
Albuminuria and other symptoms of Toxæmia,	- - - - 9	Hyperemesis and Heart Disease,	- - - -	1
Appendicitis,	- - - - 2	Hyperemesis and Pyelitis,	- - - -	1
Chorea,	- - - - 3	Keratitis,	- - - -	1
Concealed Accidental Hæmorrhage,	1	Leucorrhœa,	- - - -	2
Contracted Pelvis,	- - - 5	Meningitis,	- - - -	1
Cystitis,	- - - - 1	Oedema without Toxæmic symptoms,	- - - -	1
Eclampsia,	- - - - 5	Phlebitis,	- - - -	1
Eczema,	- - - - 1	Placenta Prævia,	- - - -	2
Epilepsy,	- - - - 2	Post-Encephalitis Lethargica,	- - - -	1
Facial Paresis,	- - - - 1	Pulmonary Tuberculosis,	- - - -	2
External Accidental Hæmorrhage,	14	Pyelitis,	- - - -	26
Gastritis,	- - - - 1	Too early for Confinement, Negative,	- - - -	32
General Debility,	- - - - 20	Tubercular Meningitis,	- - - -	1
Glycosuria,	- - - - 2	Uterine Fibroid,	- - - -	1
Hæmaturia,	- - - - 2			<u>220</u>

*Results—*

Discharged well,	...	...	...	...	...	103
Discharged improved,	...	...	...	...	...	8
Discharged I.S.Q.,	...	...	...	...	...	35
Discharged to other Institutions,	...	...	...	...	...	66
Died,	...	...	...	...	...	8
						<u>220</u>

In the above series induction of abortion was performed in eight cases :—

Heart Disease,	- - - 1	Keratitis and Blindness of One Eye,	- 1
Hyperemesis,	- - - 4	Repeated Hæmorrhage,	- - - 2

## CASES OF UTERINE BLEEDING.

There were 160 cases discharged from hospital which had been admitted suffering from uterine hæmorrhage. These have been classified as follows :—

Threatened abortions,	...	...	...	...	20
Complete abortions,	...	...	...	...	28
Incomplete abortions,	...	...	...	...	107
Hydatidiform mole,	...	...	...	...	3
Fleshy mole,	...	...	...	...	1
Negative,	...	...	...	...	1
					<u>160</u>

Four incomplete abortions were septic on admission and are included under the cases of puerperal sepsis removed from the Institution.

Results :—

Discharged well, ... ..	112
Sent to County Convalescent Home, ... ..	44
To Motherwell Hospital, ... ..	4
	<hr/>
	160
	<hr/>

GYNÆCOLOGICAL CASES.

A detailed statement of 38 gynæcological cases having either medical or surgical treatment is given below :—

Abscess of Bartholin's Gland, -	1	Medical Treatment, - -	1
Ascites, - - - -	1	Laparotomy, - - - -	1
Cervical Lacerations, - -	1	Medical Treatment, - -	1
Dysmenorrhœa, - - - -	2	Curettage, - - - -	2
Endometritis, - - - -	1	Curettage, - - - -	1
Fibroid Tumour, - - - -	2	Medical Treatment, - -	2
Metrorrhagia, - - - -	2	{ Curettage, - - - -	1
		{ Medical Treatment, - -	1
Ovarian Cyst, - - - -	1	Excision, - - - -	1
Oophoritis, - - - -	1	Medical Treatment, - -	1
Perineal Lacerations, - -	4	{ Medical Treatment, - -	1
		{ Perineorrhaphy, - - -	3
Polypus of Cervix, - - -	1	Excision, - - - -	1
Pyometra, - - - -	1	Medical Treatment, - -	1
Sterility, - - - -	1	Curettage, - - - -	1
Subinvolution, - - - -	7	Curettage, - - - -	7
Uterine Hæmorrhage, - -	10	{ Medical Treatment, - -	6
		{ Curettage, - - - -	4
Negative, - - - -	1	Medical Treatment, - -	1
	<hr/>		<hr/>
	38		38
	<hr/>		<hr/>

CASES OF NORMAL CONFINEMENT.

Number of normal deliveries, ... ..	337
Number of cases delivered without medical attendance at delivery, ...	253
Number of cases of morbidity, ... ..	None.
Number of deaths, ... ..	None.
Infants dying in the Institution numbered ... ..	35
Cases of puerperal pyrexia removed from the Institution, ... ..	14

TABLE M IX.

*Infants born in Hospital—*

In Residence, 1/1/30	Infants born. Alive.	Still-born.	Discharged. Well.	Died.	In Residence, 31/12/30
12	638	85	600	35	15

*Babies admitted with Mother—*

In Residence, 1/1/30	Admitted.	Discharged. well.	Died.	In Residence, 31/12/30
—	26	25	—	1
Sex.	Babies born alive. Legitimate.	Illegitimate.	Babies still-born. Legitimate.	Illegitimate.
Males, -	284	53	41	4
Females, -	233	68	33	7
		638		
			85	

The following shows the number of infants born since the Local Authority began the treatment of maternity cases, 1918 to 1930 :—

	In Residence.	Infants Born alive.	Still-born.	Discharged well.	Died.	In residence.
1918, -	—	7	—	5	—	2
1919, -	2	30	2	22	5	5
1920, -	5	110	6	105	6	4
1921, -	4	203	22	183	15	9
1922, -	9	213	50	201	11	10
1923, -	10	288	57	273	20	5
1924, -	5	334	61	303	23	13
1925, -	13	501	56	458	28	28
1926, -	28	643	64	605	43	23
1927, -	23	683	63	659	27	20
1928, -	20	646	71	621	32	13
1929, -	13	508	50	478	31	12
1930, -	12	638	85	600	35	15

PERCENTAGE TABLE OF DELIVERY.

	Cases.	Per Cent.
Normal, ...	570	79.2
Manual, ...	11	1.5
Version, ...	11	1.5
Forceps, ...	65	9.1
Failed forceps, ...	14	2.0
Failed Forceps, Craniotomy, ...	5	0.7
Craniotomy, ...	5	0.7
Induction of Labour, ...	36	5.1
Cæsarean section, ...	2	0.2
	<hr/> 719	<hr/> 100.0

TABLE M X.  
NATURE OF PRESENTATION AND DELIVERY.

Presentation.	Delivery.							Induction.		Total.
	Normal.	Manual.	Version.	Forceps.	Failed Forceps before adm. Normal after admission.	Failed Forceps before adm. Forceps after admission.	Failed Forceps before adm. Craniotomy after admission.	Craniotomy.	Cæsarean Section.	
Vertex Anterior,	508	1	...	55	5	6	5	3	2	619
Posterior, -	14	...	...	6	...	2	...	...	1	23
Breech, -	34	9	6	2	...	...	...	1	...	52
Footling, -	4	1	1	...	...	...	...	...	1	7
Transverse,	1	...	2	...	...	...	...	...	...	3
Funis, -	5	...	...	...	...	...	...	...	...	5
Brow, -	...	...	...	1	...	...	...	1	...	2
Hand, -	...	...	1	1	...	...	...	...	...	2
Knee, -	...	...	1	...	...	...	...	...	...	1
Face, -	4	...	...	...	...	1	...	...	...	5
	570	11	11	65	5	9	5	5	2	719

There were 19 sets of twins, - - 19

...

700

TABLE M XI.

TABLE SHOWING PREGNANCIES AT VARIOUS AGE-PERIODS.

Gravida	- 20	- 25	- 30	- 35	- 40	- 45	45 and over	Total
1	57	150	58	16	9	...	...	290
2	6	65	36	16	7	2	...	132
3	...	21	28	16	5	2	...	72
4	...	6	16	14	5	1	...	42
5	...	1	20	11	9	...	...	41
6	...	...	5	11	5	1	...	22
7	...	...	2	11	17	2	1	33
8	...	...	1	5	10	5	1	22
9	...	...	1	2	7	3	1	14
10	...	...	...	1	5	2	...	8
11	...	...	...	1	9	2	...	12
12 & over	...	...	...	...	6	6	...	12
	63	243	167	104	94	26	3	700

#### ECLAMPSIA.

There were three ante-natal cases of eclampsia, 28 occurred during labour, while 7 occurred during the puerperium.

The undernoted table shows a list of cases of eclampsia treated during the past 5 years, and the number of deaths, and the percentage of maternal mortality.

TABLE M XIII.

Year.	Cases.	Died.	Per cent. Mortality.
1926, ... ..	27	2	7.4
1927, ... ..	19	2	10.5
1928, ... ..	24	2	8.3
1929, ... ..	22	3	13.6
1930, ... ..	38	4	10.5
	130	13	10.0

It is interesting to compare the mortality rates of the above table, with those in hospitals throughout Great Britain (*vide* Professor Fairbairn's text book, 1928).

London, ... ..	21.9% (547 cases)
North of England, ... ..	24.43% (804 cases)
Midlands, ... ..	25.10% (302 cases)
Edinburgh, ... ..	25.00% (148 cases)
Dublin, ... ..	10.29% (204 cases)

## MATERNAL DEATHS. ...

(1) Patient admitted with history of having some ante-partum hæmorrhage intermittently for 14 days. On admission her condition was good with a pulse-rate of 72. The five days after admission, she had only a slight staining. Examination of the abdomen revealed a pregnancy of 6½ months. Labour began early on the 6th day after admission, and the patient's pulse suddenly rising from 72 to 130 per minute was of poor quality. There was no reaction to treatment.

Cause of death: *Concealed hæmorrhage* (confirmed by post-mortem examination).

(2) Patient had suffered from severe toxæmia of pregnancy for 14 days previous to admission. The doctor in attendance did not advise hospital treatment until the onset of eclampsia. She was unconscious on admission, pulse 135 per minute, temp. 99°F., blood pressure 135, urine scanty and containing albumen and blood. Routine treatment was carried out for eclampsia. Labour pains began the following day. When os uteri was fully dilated, ether anaesthesia was induced, and the patient was delivered of the foetus. She still remained unconscious, and her condition gradually became worse, fits recurring

at long intervals. The patient died on the 5th day after admission, the pulse having varied between 135 and 152 throughout, despite treatment.

Cause of death: *Puerperal eclampsia*.

(3) Patient admitted suffering from hydramnios and uterine inertia complicating a full term pregnancy; a trace of albumen was in the urine. Membranes were ruptured early, and she was delivered of a still-born female, anencephalic, macerated foetus. The placenta was adherent; 40 minutes after completion of the 2nd stage she had a severe post-partum hæmorrhage, from which she died.

Cause of death: *Adherent placenta, post-partum hæmorrhage, obstetric shock*.

(4) Patient was admitted suffering from albuminuria, bronchitis, myocarditis, with oedema of the lower extremities. She was cyanosed and breathing was laboured. Her condition was very grave, respirations being 48, pulse 156. Condition became worse, with extreme restlessness, cyanosis, and delirium.

Cause of death: *Myocarditis*.

(5) Patient admitted 7 months pregnant, with a history of bleeding having started 3 days previously. There was no dilatation of the os uteri. Her condition was fairly good, but on the 5th day after admission she had a severe hæmorrhage, collapsed suddenly and died.

Cause of death: *Hæmorrhage, lateral placenta prævia, obstetric shock*.

(6) This patient was admitted to hospital with a history of being unwell for some considerable time. She complained of a sore throat, voice slightly husky, was confined normally, and died suddenly on the 4th day of the puerperium. A post-mortem examination was carried out on the body.

Cause of death: *Cerebral tumour*.

(7) Patient, 9th para., was admitted with a history of having an apoplectic seizure three months previously. The labour was a precipitate one, a living child being delivered. The abdomen was very much distended on the first day of the puerperium and she vomited large quantities of black substance. She gradually became weaker and died.

Cause of death: *Toxæmia of pregnancy, hemiplegia*.



(8) Patient admitted in a very collapsed condition, suffering from rupture of the uterus, which appeared to be caused by an attempt at home to rectify a persistent occipito posterior presentation. Her condition did not warrant operative treatment, the patient becoming exhausted and died shortly after admission.

Cause of death: *Rupture of the uterus, obstetric shock.*

(9) Patient admitted with history of having slight bleedings on two previous occasions, treated by rest in bed. Had been advised to come to hospital, but refused to do so, until forced several days later on account of recurring hæmorrhage. The patient had a sudden hæmorrhage after admission, collapsed, and died.

Cause of death: *Placenta prævia, hæmorrhage, shock.*

(10) Patient admitted with history of having six eclamptic seizures, severe fits continued after admission at intervals of 30 minutes, until patient died.

Cause of death: *Eclampsia, coma, cardiac failure.*

(11) Patient admitted with all the symptoms of acute toxæmia of pregnancy. Blood pressure, 182; was drowsy but conscious; vision blurred; cloud of albumen in urine and urine scanty. Patient gradually became weaker and died.

Cause of death: *Acute general toxæmia of pregnancy.*

(12) This case had six fits before admission and eleven fits after. The patient's condition was poor, ill nourished, pupils unequal. Her abdomen had only the appearance of a five months' pregnancy, and although the clinical symptoms pointed to a case of eclampsia, a post-mortem examination was carried out, and the cause of death certified as pneumonia, multiple cystic tumours of the brain.

Cause of death: *Pneumonia, multiple cystic tumours of brain.*  
(Certified by post-mortem examination.)

(13) Patient admitted with adherent placenta, very collapsed and pulseless. Restoratives administered but she did not react to treatment, dying 35 minutes after admission.

Cause of death: *Adherent placenta, post-partum hæmorrhage, obstetric shock.*

(14) Patient was admitted with a history of recurrent attacks of sickness. The tongue was dirty, pupils dilated and unequal, flushed, constipated, and very sick. Induction of abortion was carried out with some improvement, but three days later the patient was seized with agonising pain in the head, body rigid, rapid irregular pulse, squinting, and, becoming unconscious, died about 6 hours later.

Cause of death: *Tubercular meningitis* (certified by post-mortem examination).

(15) Patient had been treated at home for six weeks for albuminuria. Membranes ruptured 7 days previously, but the os uteri was now only the size of a coffee cup. When the os was fully dilated, on account of contracted pelvis, craniotomy was performed. The patient died from exhaustion following a long, tedious, and difficult labour.

Cause of death: *Delayed labour, exhaustion, obstetric shock.*

(16) Patient had history of having hemiplegia and post-partum hæmorrhage one year previously, and, immediately before admission, of having an eclamptic seizure. On being examined the blood pressure was 168, and the urine contained albumen. There was severe epigastric and lumbar pain, and marked valvular aortic disease. She had one fit, after which she died.

Cause of death: *Eclampsia.*

(17) Patient admitted in labour, was unconscious, and collapsed. She died within three-quarters of an hour.

Cause of death: *Eclampsia.*

(18) Patient had suffered from pernicious vomiting for from two to three weeks before admission. She appeared very ill, rambling in her speech, temperature 99°F., pulse 120, respirations 32, blood pressure 140, was four months pregnant. Abortion was induced, but the patient did not improve and gradually becoming worse died about 48 hours after admission.

Cause of death: *Toxæmia of pregnancy* (certified by post-mortem examination).

(Report by the Pathologist was:—Liver soft and flabby; septic spleen; petechial hæmorrhages into kidney; hæmostatic pneumonia; and atrophy of stomach.)

(19) Patient admitted from County Hospital, Motherwell, suffering from pneumonia, and only removed to Maternity Hospital to be confined. She was very exhausted after delivery, and gradually becoming worse died 48 hours after delivery. Previous history of asthma with cough one year before and pleurisy two years previously.

Cause of death : *Acute lobar pneumonia.*

TABLE M XIV.

## CAUSATION OF STILL-BIRTHS.

During the year there were 85 still-births, out of a total of 719 babies born in the Institution. This represents 11·8 per cent. foetal mortality, a higher rate than previously recorded.

There is, however, an increase of 25 per cent. in complicated and abnormal cases, and this is reflected in a higher ante-partum foetal death-rate.

The probable and certain causes in some cases in the mother and child, respectively, were as follows:—

MOTHER.				CHILD.			
Ante-partum Hæmorrhage, - - -	22	{		Macerated and Hydrocephalus, -			1
				Macerated and Premature, -			5
				Premature, - - - -			13
				Negative, - - - -			3
After Abnormal Presentation, - - -	10	{		Anencephalus and Meningocele, -			1
				Anencephalus, - - - -			1
				Macerated, - - - -			2
				Negative, - - - -			6
Eclampsia, - - - - -	12	{		Macerated, - - - -			4
				Premature, - - - -			3
				Negative, Full Term, - - - -			5
Prolapsed Cord, - - - - -	4			Negative, - - - -			4
General Toxæmia, - - - - -	2			Premature, Macerated, - - - -			2
Contracted Pelvis, - - - - -	6			Craniotomy, - - - -			6
Delayed Labour, - - - - -	2			Negative, - - - -			2
Contracted Pelvis, - - - - -	5			Craniotomy, after failed forceps before admission, - - - -			5
Albuminuria, - - - - -	5	{		Macerated, - - - -			2
				Negative, - - - -			2
				Hydrocephalus, - - - -			1
Hydramnios, - - - - -	1			Premature, - - - -			1
Normal Cases, - - - - -	16	{		Hydrocephalus and Spina Bifida, -			2
				Hydrocephalus, - - - -			3
				Anencephalus, - - - -			3
				Macerated, - - - -			4
				Premature, - - - -			1
				Negative, - - - -			3
<hr/>							
85				85			
<hr/>							

PUERPERAL PYREXIA, DEFINITION, PREVENTION, AND METHODS  
ADOPTED IN PROPHYLAXIS.

The term "puerperal pyrexia" includes all causes of elevation of temperature of 100·4°F. on two occasions, and sustained over a period of 24 hours or has recurred during that period, during 21 days succeeding the evacuation of the contents of the uterus.

The report deals with the results obtained during the year, with the routine treatment adopted in the prevention of sepsis in cases of—

- (1) Confinements (normal and abnormal).
- (2) Post-natal cases.
- (3) Abortions.

One of the ideals of a practising obstetrician is the prevention of puerperal sepsis, and the criterion of a successful hospital practice is the low incidence of puerperal pyrexia.

There is neither a specific remedy for puerperal sepsis nor for prevention of it; one has, therefore, to follow the approved lines of treatment for prophylaxis, in order to obtain the best results. Often, despite the observance of rigid asepsis, the disease may supervene.

Surgical cleanliness is the key to the situation, but that will not abort an attack of fever if, through careless handling of a patient, the germs of the disease have already been sown on damaged tissues. The disease may appear in face of every precaution.

Every member of a nursing staff should be acquainted with what is really understood by asepsis before being allowed to make vaginal examinations or attending the dressing of a patient in lying-in wards. This is specially applicable to pupil-nurses who have no previous training in nursing, and who imagine if their fingers are dipped in an antiseptic solution the germs which may cause a pathogenic infection are immediately killed. It is too often the case that such an inexperienced nurse, in order to be quite sure that these germs will be "killed," makes the disinfectant solutions doubly strong. Such a solution applied to a mucous surface destroys not only the germs of the disease but also the helpful flora of the vaginal canal, as well as the tissues of the mucous membrane. The external genitals only should be treated with disinfectants, while mucous surfaces should be washed with sterile water. Acriflavine in solution of 1 to 1,000 is used for the skin after thorough cleansing with soap and water.

Instead of relying on disinfectant solutions, greater attention should be paid to the cleansing of the hands with soap and running

water. As an additional precaution, sterilised gloves should be worn; after sterilisation the gloves should be placed in 1 in 2,000 solution of biniodide of mercury for a time before being used. Gloves which are perforated through wear or injury are a source of danger.

Other aids to prevention for the attendant are the wearing of a mask to cover the mouth and nose, in case of droplet infection by coughing or sneezing; a sterilised covering for the hair; and a sterilised coat. A fresh outfit should be used at each case. Such personal care on the part of the staff is an essential qualification of every nurse in a maternity institution.

The presence of a slight septic focus on a finger, or even a nasal discharge, may be the fruitful cause of an outbreak of sepsis within a lying-in ward.

Personal cleanliness on the part of the patient is worth remembering, and a patient may infect herself by scratching and damaging the soft parts in cases of pruritis. Every patient should be provided with separate toilet requisites, and the towels and other sterilisable articles should be frequently changed for washing and sterilisation.

In the interests of the prevention of debris accumulating in the uterus, patients during the puerperium should be encouraged to sit up, so that there may be efficient drainage. A backward displacement of the uterus may cause retention of debris, the absorption from which may give rise to an elevation of temperature.

A and D vitamins, contained in Adexolin capsules, have been used for over a period of three months for all ante-natal and puerperal women, and, although nothing can yet be deduced, nevertheless the rate of pyrexia during that period has been negligible.

It is important that the patient be fed with nourishing food, and, in addition, a moderate dose of cod-liver oil emulsion three times a day may prove advantageous.

In cases where there is evidence of purulent discharge without elevation of temperature or quickened pulse, isolation is indicated, and hot vaginal douches should be given under low pressure.

In incomplete abortions, glycerine in 3-oz. quantities is administered into the uterus every four hours.

Probably not the least important procedure is the use of puerperal antistreptococcal serum, prepared by Parke, Davis, & Co. The results obtained (detailed later) are such as to warrant further use. The serum is administered to all cases where there has existed any toxæmia of pregnancy, in cases of ante-partum or post-partum hæmorrhages,



laceration of the soft parts, and in normal cases of delivery where the patient has been examined before admission. The dosage varies according to the severity of the patients' condition and degree of interference. A loss of 20 cc. of serum will suffice where there are slight lacerations or minor interferences, while a case having severe lacerations, or suffering from debility through hæmorrhage, or toxæmia of pregnancy, or severe and extensive lacerations receives up to 70 cc. as a prophylactic dose. The needle is inserted into the rectus femoris at the middle third of the thigh.

The results record a new low level for pyrexia, and this, in my opinion, is due to the early use of serum in complicated cases. Sometimes it may be given ante-partum with satisfactory results. In booked cases there was only one case of pyrexia, a pyrexial rate of .3 per cent., while in unbooked cases the rate was 3 per cent.

The serum in general use is antistreptococcal puerperal serum. For a period of nearly five months scarlet fever serum was almost exclusively used, and the major number of cases of pyrexia of the year occurred during that period.

The opinion expressed by some has been to the effect that scarlet fever serum gives more satisfactory results than puerperal antistreptococcal serum, and some assert that equal results are obtained from either, while others consider both are valueless as a preventive or curative measure. Puerperal antistreptococcal serum, as revealed by the statistical returns at this hospital, would appear to be a valuable prophylactic, and if a patient, having received such treatment, does develop pyrexia, the severity of the disease is lessened, the mortality rate is diminished, and the period of treatment considerably reduced.

It is worthy of note that experience has been that a serum rash is present in quite a large number of cases, while a slightly disturbing feature to the patient after the use of serum is the appearance of red staining on 7th to 12th days of the puerperium. The staining does not usually last for more than 36 hours when treated with hæmostatic serum and extract *ergotæ liquidum*.

Kharsulphan .3 gms. can be given every alternate day as an additional safeguard in cases which have sustained much interference.

By exercising care during labour, neither erring by too early application of forceps, nor allowing the patient to become exhausted, the occurrence of puerperal sepsis should be appreciably lessened.



The prevention of pyrexia requires an efficient nursing staff, who fully realise the significance of asepsis. A small proportion of the cases of sepsis arises from the patient's own condition (autogenous infection), but a patient with a copious vaginal discharge in a Maternity Hospital may be a menace to her neighbours, especially if she be attended by a careless nurse. In this hospital, owing to lack of accommodation, only the severer cases of infection are isolated, as there are only two beds available for such cases. Abortions, cases of pyelitis, cases of failed forceps before admission, abdominal sections, and clean cases of normal confinements are nursed side by side, so that conditions are not ideal. Consequently the low rate of pyrexia, coupled with a fairly high complicated case-rate, reflects credit on the staff under the existing conditions.

In spite of these difficulties, the following records of puerperal pyrexia from year to year are illuminating and interesting:—

TABLE XV.

1925.			
	No.	Puerperal Pyrexia.	per cent.
Confinements, - -	517	50	7.5
Post-natals, - - -	26		
Abortions, - - -	122		
Normal Confinements numbered	476	18	3.8
1926.			
Confinements, - -	696	55	6.5
Post-natals, - - -	26		
Abortions, - - -	126		
Normal Confinements numbered	380	11	3.0
1927.			
Confinements, - -	726	45	5.0
Post-natals, - - -	47		
Abortions, - - -	125		
Normal Confinements numbered	432	?	?
1928.			
Confinements, - -	707	41	4.7
Post-natals, - - -	32		
Abortions, - - -	125		
Normal Confinements numbered	432	10	2.3
1929.			
Confinements, - -	543	20	2.8
Post-natals, - - -	21		
Abortions, - - -	139		
Normal Confinements numbered	279	Nil	Nil
1930.			
Confinements, - -	700	19	2.1
Post-natals, - - -	40		
Abortions, - - -	160		
Normal Confinements numbered	308	1	.3

No Serum  
used.

Serum used  
in cases  
with severe  
lacerations.

Serum used  
in all  
complicated  
cases.

## REPORT ON CASES OF PYREXIA.

(1) 1018.—8th para, placenta prævia, severe ante-partum hæmorrhage; secondary post-partum hæmorrhage on 10th day, discharged well on 25th day.

(2) 674.—Patient had several examinations by midwife and doctor before admission. Delayed labour, forceps delivery, delivered of a living child. Scarlet fever antitoxin 70 cc. given. Transferred to County Hospital, Motherwell, and discharged from there 36 days after admission.

(3) 640.—Patient had a recto-vaginal fistula resulting from 1st confinement, normally delivered, constipated for 7 days, and on the evening of the 7th day temperature rose for the first time. The patient was transferred to County Hospital, Motherwell, and was discharged from there 38 days after admission.

(4) 844.—Patient suffered from albuminuria and had a contracted pelvis, labour was delayed and patient was delivered by forceps. First elevation of temperature on 9th day, had 10 cc. of scarlet fever antitoxin at beginning of puerperium. Transferred to County Hospital, Motherwell, and discharged from there 22 days after admission.

(5) 687.—Patient suffered from heart disease and bronchitis, delivered normally, but had rise of temperature on 5th day. No serum given. There was nothing to account for, apart from the bronchitic condition mentioned above.

(6) 1376.—Patient walked into hospital in labour, delivered normally, did not have rise of temperature until 9th day, after being allowed up. Albumen present in the urine by catheter specimen during the puerperium. The patient was transferred to County Hospital, Motherwell, and discharged from there 20 days after admission.

(7) 1442.—Primipara admitted in labour, had three examinations at home by family doctor; membranes were ruptured previous to admission. The patient was in all 28 hours in labour, and was delivered of twins by forceps. There was a slight perineal tear, and 60 cc. serum were administered. The patient was transferred to County Hospital, Motherwell, and was discharged from there on the 27th day.

(8) 1412.—Ante-partum hæmorrhage and albuminuria severe, examined before admission, delivered herself normally of premature still-born child. The placenta was very unhealthy looking and ragged. 40 cc. puerperal antistreptococcal serum were given. The patient was transferred to County Hospital, Motherwell, and discharged from there on 27th day.

(9) 402.—Patient admitted as case of "eclampsia," duration of pregnancy, 7 months, was a notified case of tuberculosis, confined normally. The temperature did not rise until 7th day, and the patient was transferred to County Hospital, Motherwell, dying there several days later.

(10) 182.—Patient admitted with impacted breech to which forceps was applied, patient was delivered of badly macerated fœtus. During labour the patient's pulse rose to 160. Scarlet fever antitoxin given before delivery and kharsulphan .3 gms. twice after delivery. Patient was transferred to County Hospital, Motherwell, and discharged from there 29 days later.

(11) 500.—Patient, a primipara, who had a midwife in attendance before admission, was admitted and delivered normally of living child. Scarlet fever antitoxin 10 cc. given. Patient developed temperature on 3rd day, and was transferred to County Hospital, Motherwell, being discharged from there well, 31 days later.

(12) 645.—Patient, a primipara, admitted with history of breech presenting, and the body being delivered to the head. Examination of the mother showed extensive bruising of the buttocks and of the abdomen present on admission. The patient had three doses of serum. The temperature did not rise until the 5th day, when the patient was immediately transferred to County Hospital, Motherwell, where she died.

#### ABORTIONS.

(13) 755.—Patient was septic on admission, and was immediately transferred to County Hospital, Motherwell, after a fleshy mole had been discharged from the uterus.

(14) 1,096.—Patient admitted to hospital as threatened abortion with elevated temperature. No vaginal examination was made. The contents of the uterus were discharged and were foul-smelling on delivery. Puerperal antistreptococcal serum 10 cc. were given, and the

patient was immediately removed to County Hospital, Motherwell, and died five days later.

(15) 1,455.—Patient admitted to this institution with temperature was curetted, and at the time of operation it was observed that the posterior lip of the cervix was badly bruised and necrosed. The patient was removed to County Hospital, Motherwell, and discharged from there 9 days later.

(16) 177.—Patient admitted to hospital on account of threatened abortion. The membranes were ruptured on the 8th day after admission on account of continued hæmorrhage, and the contents of the uterus were discharged normally. The patient did not have a rise of temperature until the 7th day of the puerperium. The patient was removed immediately to the County Hospital, Motherwell, and died there of general peritonitis.

(17) 1,403.—Patient suffering from an incomplete abortion admitted with temperature of 104°F., pulse 120. The patient was given 30 cc. serum, and was treated with injections of glycerine to the uterine cavity. Patient signed the certificate going home against medical advice.

(18) 1,379.—Case of 3½ months' abortion, the membranes were ruptured on account of repeated hæmorrhage, and a macerated fœtus was discharged by uterine contractions. Glycerine was administered locally 30 cc. puerperal antistreptococcal serum was given. Patient was discharged well on 20th day after the uterus was emptied.

(19) Patient admitted with severe bleeding, vagina packed on admission to control hæmorrhage, was curetted after admission, and given 20 cc. serum. The patient was discharged well on 15th day.

#### CONFINEMENTS BEFORE THE ARRIVAL OF AMBULANCE.

(20) 253.—Patient admitted after child been born at home. Three doses of serum given after admission on account of history of puerperal sepsis in previous confinement. The patient was discharged well on 15th day of puerperium.

(21) 105.—Patient admitted after birth of child suffering from albuminuria. The child was still-born and premature. The placenta was retained and removed manually by doctor at home. 30 cc. scarlet fever antitoxin were given. The patient's temperature rose to 100·6, and she was removed immediately to County Hospital, Motherwell and was discharged from there 40 days later.

The table below shows a record of cases removed to the County Isolation Hospital on account of puerperal sepsis. There were 15 cases removed; 14 proved positive, while one had the diagnosis revised, as neither temperature nor pulse was elevated on admission. This patient was delivered in the County Maternity Hospital of a foul-smelling mass—a three months' incomplete abortion—and was immediately removed to the County Isolation Hospital.

In following up the cases that were removed to County Hospital, Motherwell, there were:—

Complicated Confinements, ... ..	9
Normal Confinement, ... ..	1
Confined at home, but admitted on account of some complication, ... ..	1
Abortions, ... ..	4
	—
	15
Other cases of pyrexia which were not removed, ...	6
	—
	21
Revised diagnosis in an abortion removed to County Hospital, Motherwell—Negative, ... ..	1
	—
Pyrexia therefore numbered ... ..	20

Table M XVI shows the number of complicated cases receiving serum.

TABLE M XVI.

Month.	No. of Cases of Pyrexia.	Complicated Confinements.	Abortions.	Serum given in		
January,	Nil	34	13	33	Scarlet Fever Serum,	38
February,	2	31	14	31	{ Scarlet Fever Serum,	13
					{ Puerperal Fever Serum,	18
March,	3	32	14	33	{ Scarlet Fever Serum,	29
					{ Puerperal Fever Serum,	4
April,	2	34	12	34	Scarlet Fever Serum,	34
May,	3	46	16	48	{ Scarlet Fever Serum,	46
					{ Puerperal Fever Serum,	2
June,	1	33	14	42	{ Scarlet Fever Serum,	22
					{ Puerperal Fever Serum,	20
July,	2	30	14	34	Puerperal Fever Serum,	34
August,	1	30	14	33	Puerperal Fever Serum,	33
September,	Nil	30	15	29	Puerperal Fever Serum,	29
October,	6	27	9	31	Puerperal Fever Serum,	31
November,	1	26	10	32	Puerperal Fever Serum,	32
December,	Nil	33	15	41	Puerperal Fever Serum,	41
Totals,	21	386	160	426	{ Scarlet Fever Serum,	162
					{ Puerperal Fever Serum,	244

It is very evident if one examines in detail Table XVII, the greater proportion of sepsis, and that of a severe type occurred in the first five months, whereas in the last seven months the disease assumes a milder form. A further observation is the fact that scarlet fever antitoxin was almost exclusively used during the earlier part of the year, while puerperal serum wholly so during the second part of the year. Although by no means conclusive, it is suggestive that the puerperal antistreptococcal serum is the more advantageous of the two.

The residence of these cases in hospital is short and, if one were to exclude deaths, it is found that the average residence in hospital of each patient is 28 days, while, if all cases are taken into account the average residence of each patient is 23·4 days. The classification of the severity of the disease is as follows:—

Severe, ...	...	...	...	...	5
Moderate, ...	...	...	...	...	3
Mild, ...	...	...	...	...	6
Negative, ...	...	...	...	...	1

The definition of the term “Puerperal Morbidity” seems to have given rise to some confusion.

According to some it would mean that all deaths from whatsoever cause occurring in a Maternity Hospital include all cases of puerperal pyrexia from any cause, whether such pyrexia is due to pneumonia, pyelitis, puerperal sepsis where the temperature is sustained over a period of 24 hours.

However, in this report pyrexia covers all conditions giving rise to temperature according to the B.M.A. Standard, after the contents of the uterus have been evacuated and until 21 days have elapsed.

#### IMPROVEMENTS AND ALTERATIONS.

During the year a new septic tank was built at an approximate cost of £670.

In Pavilion III sludge sinks were replaced by a Scanlan-Morris bedpan washer and steriliser.

The pressure of the water at the Institution was found to be insufficient, and, on examination, it was found that the main supply pipes in the hospital grounds had become much corroded, thereby reducing their calibre. The County Water Department had the pipes scoured in order to remove the corrosion.



TABLE XVII.

Registered Number.	Condition on admission to Maternity Hospital, Belisuli.	Temperature sustained over 98.4 after admission to County Hospital, Motherwell, in days.	Pulse sustained over 90 per minute after admission to County Hospital, Motherwell, in days.	Serum used.	Days in Hospital.	Type.	Result.
177	Patient admitted with history of some bleeding 3 weeks before admission. On the 9th day after admission membranes ruptured, contents expelled — which were very offensive. Temperature rose on the evening of 7th day.	13	13	Puerperal Serum.	13	Severe (Peritonitis).	Died.
182	Membranes alleged to be ruptured 10 days before admission. Temperature 102, pulse 140, in labour, breech presenting, meconium discharging per vagina, odour very offensive. Removed immediately to Isolation Hospital.	8	29	Scarlet Fever Serum.	29	Moderate.	Well.
402	Eclampsia, confined normally, female premature child. Temperature did not rise until 8th day. Post-mortem at County Hospital, Motherwell. Large white kidney, oedema of brain, pleural blood effusion.	25	25	Scarlet Fever Serum.	25	Severe.	Died.
480	Placenta adherent, removed manually before admission.	1	3	Scarlet Fever Serum.	40	Mild.	Well.
755	Abortion, septic on admission. Temperature 102.6, fleshy mole expelled, very offensive, removed immediately to County Hospital, Motherwell.	2	3	None.	19	Mild.	Well.
500	Primipara in labour, midwife in attendance until ambulance arrived. Normal confinement in hospital. Slight perineal tear.	5	14	Scarlet Fever Serum.	31	Moderate.	Well.
545	Impacted after coming head in breech presentation. Vagina badly lacerated, buttocks and abdomen severely bruised over large area. Delivered easily in hospital.	1	1	Scarlet Fever Serum.	1	Severe.	Died.

640	In labour on admission. An old recto vaginal fistula (large). Normal confinement. Constipated for seven days on account of fistula to prevent infection to genital tract. First rise of temperature on 7th day.	21	27	Scarlet Fever Serum.	45	Severe.	Well.
674	Admitted in labour. Eight P. V. examinations by midwife before admission. Forceps delivery.	4	18	Scarlet Fever Serum.	38	Mild.	Well.
844	Admitted in labour, general edema, contracted pelvis, membranes ruptured, forceps delivery. First rise of temperature 10th day.	4	4	Scarlet Fever Serum.	22	Moderate.	Well.
1096	Alleged by Authorities a criminal abortion, septic on admission, not examined in hospital. Abortion complete shortly after admission.	5	5	Puerperal Serum.	5	Severe.	Died.
1376	Third para, unmarried mother, normal delivery in every respect. Temperature rose on 9th day on first occasion.	2	3	None.	20	Mild.	Well.
1442	History of being in labour for 26 hours before admission. Doctor in attendance. Forceps delivery of twins, the second normal. The temperature rose on 3rd day.	4	24	Puerperal Serum.	27	Mild.	Well.
1412	Admitted with history of severe antepartum hemorrhage. Pulse poor and rapid. Examined before admission, membranes ruptured.	4	5	Puerperal Serum.	27	Mild.	Well.
1455	Patient on admission was septic, history of having been twice packed for hemorrhage at 3rd month of pregnancy during the previous three weeks. Removed to County Hospital, Motherwell, at once.	—	—	None.	9	Negative.	Well.

## OUT-PATIENT DEPARTMENT.

The staff of the Institution now is as follows:—

- 1 Physician-Superintendent.
- 1 Consulting Surgeon.
- 1 Resident Assistant Medical Officer.
- 1 Matron.
- 3 Sisters.
- 3 Staff Nurses.
- 1 Typist.
- 10 Maids.
- 1 Chauffeur.
- 4 Stoker-gardeners.

In addition to the permanent staff there are 16 nurses who are taking the qualifying course in midwifery.

Dr. J. B. C. Waugh was appointed Resident Assistant Medical Officer, taking up duties on 6th November, 1930.

Hereafter there is a detailed statement of ante-natal and gynaecological cases attending the Out-Patient Department.

	Normal.	Oedema.	Debility.	Contracted Pelvis.	Toxaemia of Pregnancy.	Abortion.	Repeated death of Child.	Heart Disease.	Pyelitis.	Leucorrhoea.	Ante-partum Hemorrhage.	Others.
Bothwell, -	164	8	13	15	21	1	9	1	2	1	2	—
Blantyre, -	67	2	2	1	18	1	—	—	—	—	—	—
Cambuslang, -	63	1	1	—	2	—	3	—	1	1	—	7
New Monkland, -	74	3	—	1	5	—	3	—	2	2	—	1
Old Monkland, -	52	1	1	—	2	2	—	—	1	—	—	—
Dalserf, -	22	1	1	—	1	1	1	—	—	2	1	1
Shotts, -	36	—	1	—	1	1	—	1	—	—	1	1
Hamilton, -	26	—	—	—	2	—	—	—	—	—	—	—
Dalziel, -	4	1	—	3	—	—	—	—	—	—	—	—
Cambusnethan, -	21	1	1	1	—	1	—	—	—	—	—	—
Glassford, -	1	—	—	—	—	—	—	—	—	—	—	—
East Kilbride, -	3	—	—	—	—	—	—	—	—	—	—	—
Avondale, -	3	—	—	1	—	—	—	—	—	—	—	—
Stonehouse, -	4	—	—	—	—	—	—	1	—	1	1	2
Lower Ward, -	22	—	4	1	1	—	2	—	—	1	—	4
Upper Ward, -	25	—	—	3	—	—	1	1	—	—	—	1
	587	18	24	26	53	7	19	4	6	8	5	17

*Others:—*

Nervous Disorders, -	2	Goitre, -	3
Keratitis, -	1	Pseudoceyesis, -	1
Prolapsus Uteri, -	3	Perineal Tear, -	1
Anteflexed Uterus, -	1	Hernia, -	3
Varicose Veins, -	2		

Parishes	Endometritis	Dysmenorrhoea	Amenorrhoea	Metrorrhagia	Sub-involution	Cervical Lacerations	Perineal Lacerations	Prolapsus Uteri	Uterine Displacements	Uterine Fibroid	General Debility	Others	Totals
Bothwell, -	7	...	...	5	8	5	...	...	9	3	2	2	41
Biantyre, -	...	1	2	6	5	4	...	3	1	...	1	1	24
Cambuslang, -	...	1	...	4	1	5	4	3	6	...	...	1	25
New Monkland, -	1	...	...	2	1	3	...	1	...	...	...	1	9
Old Monkland -	...	...	...	1	...	2	...	...	...	...	...	...	3
Dalserf, -	...	...	...	4	...	2	...	2	3	...	2	...	13
Shotts, -	...	1	...	2	1	...	4	...	...	...	...	...	8
Hamilton, -	1	...	...	1	1	...	1	...	2	...	...	...	6
Dalziel, -	...	...	...	...	...	...	...	1	...	...	...	...	1
Cambusnethan, -	...	...	...	...	...	1	...	...	...	...	...	...	1
Avondale, -	...	...	...	...	1	...	...	1	...	...	...	...	2
East Kilbride, -	...	...	...	...	...	...	1	...	...	...	...	...	1
Glasford, -	...	...	...	...	...	1	...	...	...	...	...	...	1
Stonehouse, -	...	...	...	1	...	...	...	...	...	...	...	...	1
Upper Ward, -	...	...	1	5	2	...	...	...	...	2	...	...	10
Lower Ward, -	2	1	...	3	...	2	...	...	1	...	...	...	9
	11	4	3	34	20	25	10	11	22	5	5	5	155

Others :—Lumbar Pain, - 1 Recto-Vaginal Fistula, - - 1  
Menopause, - 1 Salpingitis, - - - 1  
Abscess of Bartholin's Gland, - - 1

#### TRAINING OF PUPIL-MIDWIVES.

During the year 25 pupils were admitted for training, bringing the total number of pupils trained since the Institution was recognised as a training school up to 184.

The following are the regulations at present in force regarding applicants desirous of midwifery training:—

- (1) Nurses who have completed their training in any of the County Institutions, applying within 6 months of leaving the Local Authority's service—£1.
- (2) Nurses who have trained in County Institutions and subsequently and consecutively have taken their general training, if applying within 6 months of completion of general training—£1.
- (3) Nurses on the General or Supplementary Registers who have completed 2 years with the Local Authority's, if applying during the time they are employed—£1.

(4) Nurses on General or Supplementary Registers—£5.

(5) Untrained applicants—£40.

Of the amounts mentioned, £1 must accompany the application for engagement, and the balance will be payable when training is commenced. Nurses who are trained in the Local Authority's Institutions must likewise make a deposit of £1 at the time of application for engagement. Such deposit shall not be repayable except, in the opinion of the Physician-Superintendent, special circumstances warrant repayment. Where an applicant has received previous training, one reference must be from the Matron under whom she last worked.

Applicants who are not certified nurses must have a good general education. Applicants who do not hold a certificate in English satisfactory to the Physician-Superintendent must pass a test in English (including dictation), arithmetic, and general knowledge.

In order to comply with the regulations of the Central Midwives Board, whereby every pupil-nurse must attend during her period of training five cases of confinement in the patient's home, arrangements have been made with the Glasgow Royal Maternity Hospital to take one nurse a month for this purpose.

A certified midwife in the Bellshill district has likewise agreed to take out a nurse from this hospital to necessitous cases. This arrangement has worked harmoniously up to the present time.

During the past eighteen months, 40 nurses have completed their period of training under the new regulations.

#### TRAINING OF PUPIL-MIDWIVES.

	Nurses admitted.	Free training.	Deposit only.	Fee paying.	Total Fee.
1921-22, ...	13	10	—	3	£60
1923, ...	17	7	—	10	144
1924, ...	21	1	5	15	199
1925, ...	26	1	6	19	373
1926, ...	26	—	2	24	500
1927, ...	12	—	4	8	180
1928, ...	19	2	10	7	180
1929, ...	25	1	15	9	200
1930, ...	25	—	9	16	184
	184	22	51	111	£2,020

25 pupil-nurses went forward to the examination of the Central Midwives Board; 23 sat the examination in Glasgow, while 2 took their examination in London.

Each nurse successfully passed the examination.

Receipts from patients towards defraying their cost of maintenance and treatment in hospital amounted to £694 1s. 2d.

#### SPECIMENS.

Specimens sent to Pathological Department, County Offices, Hamilton :—

*Urines.*—75 specimens; results were as follows: Negative, 10; albumen, 38; blood, 1; pus, 23; sugar, 3.

*Placental Bloods for Wassermann.*—286 specimens: results were as follows: Negative, 265; positive, 2; lysed, 18; doubtful, 1.

*Blood for Widal Test.*—7; results were as follows: Negative, 6; positive, 1.

*Swabs for Diphtheria.*—1: negative, 1.

*Swabs from Eyes.*—3: Negative, 3.

*Tissue for Malignant Disease.*—2: Negative, 2.

*Sputum.*—4: Negative, 2; pneumococci, 2.

#### MATERNITY OUTFITS.

It has been recognised that the poor are often ill provided for at the time of labour as regards medical comfort. During the year 1930, it was resolved to provide a comprehensive outfit that would be at a minimum of cost to meet the requirements of any normal confinement. The following equipment is sterilised and packed at the Hospital in sealed parcels and sold for 4s. 6d. each through the medium of the Child Welfare Centres :—

12 sanitary towels.

4 doz. swabbing squares.

1 yard jaconet.

2 squares gauze tissue, 19 inches by 16 inches.

3 cord ligatures.

6 cord dressings.

1 doz. assorted safety pins.

1 doctor's towel.

1 nail brush.

1 piece of soap.



## CALDERBANK HOUSE, BAILLIESTON.

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*Physician Superintendent*—LESLIE J. LANG, M.B., Ch.B., D.P.H.

*Consulting Otologist*—JAMES ADAM, M.D., F.R.F.P.S.(G.).

*Matron*—MRS. MACDOUGALL.

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### Administration.

**ACCOMMODATION.**—Remains unchanged and consists of 14 adult beds, 18 treasure cots, and 36 children's cots.

**STAFF.**—The nursing staff consists of Matron, 1 sister, 3 staff nurses, and 9 probationers. The additional staff nurse and probationer were added in October, on account of the fact that numerous women are now being admitted from the County Maternity Hospital, Bellshill, to complete their lying-in period and that more ill than convalescent children are now admitted, including infants under one year. The domestic staff consists of 1 cook, 2 laundry-maids, and 5 maids. There is an outdoor staff of gardener, assistant gardener, and an apprentice gardener. During the year the nursing and domestic staff lost 193 working days through illness.

**BUILDINGS AND GROUNDS.**—No work beyond ordinary maintenance was carried out during the year.

#### *Admissions and Discharges.*—

		Infants (Under 1 year).	Children (1-5 years).	Adults.
In residence, 1st January, 1930,	-	21	14	6
Admitted during 1930, - - -		202	215	312
Discharged during 1930, - - -		184	205	308
Died during 1930, - - -		25	6	1
In residence, 31st December, 1930,		14	18	9

CHILD WELFARE CENTRES AND INSTITUTIONS FROM WHICH  
ADMISSIONS WERE ARRANGED.

Airdrie, - - -	17	Ear, Nose, and Throat Clinic, 90	
Baillieston, - - -	36	Bellshill Hospital, - -	242
Bellshill, - - -	25	Motherwell Hospital, -	1
Blantyre, - - -	43	Blantyre Hospital, - -	5
Cadzow, - - -	9	Through Public Health	
Cambuslang, - - -	59	Department, - - -	7
Chapelhall, - - -	10		—
Larkhall, - - -	50		345
Newarthill, - - -	18		
New Stevenston, - - -	35		
Newmains, - - -	18	In addition—	
Shotts, - - -	21	From Upper Ward, -	3
Tannochside, - - -	16	From Lower Ward, -	7
Uddingston, - - -	17		—
	<hr/>		10
	374		
		Total.	<hr/> 729 <hr/>

*Conditions Treated:—*

ADULTS.

Ante-Natal—

Debility, - - -	28	Erythema Nodosum, -	1
Hyperemesis, - - -	13	Cystitis, - - -	1
Varicose Veins, - - -	1	Ante-partum hæmorrhage,	1
Cardiac, - - -	2	Chorea, - - -	1
Albuminuria, - - -	21	Eclampsia, - - -	1
Threatened Abortion, -	2	Hæmoptysis, - - -	1
Anæmia, - - -	5	Urticaria, - - -	1
Neuritis, - - -	1	Nothing abnormal found,	25
			—105

Post-Natal—

Puerperium, - - -	59	Hemiplegia, - - -	1
Debility, - - -	42	Acute Yellow Atrophy,	1
Phlegmasia, - - -	1	Nephritis, - - -	1
Anæmia, - - -	7	Disseminated Sclerosis,	1
Albuminuria, - - -	4	Chorea, - - -	1
Mastitis, - - -	3	Hæmaturia, - - -	1
Cardiac, - - -	3	Nothing abnormal found,	2
Asthma, - - -	1		—128

## Gynæcological—

Post-operative Debility,	3	Menorrhagia,	- -	1
Post-curettage, - -	47	Post-abortion,	- -	1
Metrorrhagia, - -	2			—54

## Others—

Debility, - -	3	Neurasthenia, - -	1
Varicose Veins, -	1	Anæmia, - -	1
Goitre, - -	1	Acute Rheumatism, -	1
Hemiplegia, - -	1	Nothing abnormal detected,	1
Ear, Nose, and Throat,	5	With baby, - -	9
Phlebitis, - -	1		—25

## CHILDREN.

Debility, - -	47	Malnutrition, - -	2
Rickets, - -	30	Worms, - -	1
Ear, Nose, and Throat,	89	Infantile Paresis, -	6
Marasmus, - -	2	Infantile Hemiplegia, -	2
Phimosis, - -	9	Diarrhœa, - -	5
Bronchitis, - -	7	Mental defective, - -	1
Facial paralysis, -	1	Urticaria, - -	1
Enuresis, - -	1	Nothing abnormal detected,	5
Adenitis, - -	1	With mother, - -	4
Nephritis, - -	1		—215

Other conditions present in the above admissions:—Conjunctivitis, 1; bronchitis, 1; skin, 1; congenital cardiac disease, 1; burns, 1.

## INFANTS.

Marasmus, - -	23	Prematurity, - -	2
Debility, - -	30	Intussusception, - -	1
Phimosis, - -	25	Meningocele, - -	1
With mother, - -	104	Convulsions, - -	1
Bronchitis, - -	3	Congenital Debility, -	1
Eczema, - -	2	Hydrocephalus and Spina	
Ear, Nose, and Throat,	1	Bifida, - -	1
Rickets, - -	1	Mental defective, - -	1
Adenitis, - -	2	Tetany, - -	1
Diarrhœa, - -	2		—202

Other conditions present in the above admissions:—Cleft palate, 2; skin, 2; otorrhœa, 2; conjunctivitis, 3.

*Results.*—

	ADULTS.	CHILDREN.	INFANTS.
Discharged :—			
Well, - -	206	149	153
Improved, - -	37	36	12
I.S.Q., - -	18	12	14
Died, - -	1	6	25
Transferred to :—			
Bellshill Hospital,	43	—	1
Lanark Hospital,	2	—	—
Motherwell Hospital,	1	7	4
Lightburn Hospital,	—	1	—
Longriggend Sanatorium,	1	—	—

The causes of deaths recorded were as follows:—Maramus, 13; tetany, 1; congenital debility, 1; broncho-pneumonia, 6; meningocele, 1; hydrocephalus, 1; prematurity, 1; infantile atrophy, 1; convulsions, 1; gastro-enteritis, 2; intussusception, 1; status lymphaticus, 1; infantile hemiplegia, 1; disseminated tuberculosis, 1 (adult).

## EAR, NOSE, AND THROAT.—The following conditions were treated :—

Enlarged Tonsils and Adenoids, - - - -	86
Otorrhœa, . - - - -	4
Transillumination of Antrum, - - - -	1
Mastoid, - - - -	2
Foreign body in nose, - - - -	2

CIRCUMCISIONS.—During the year 33 circumcisions were carried out.

## ARTIFICIAL LIGHT TREATMENT

## IN-DOOR PATIENTS.

	Infants and Children.	Adults.
Receiving treatment, 1st January, 1930, - .	17	—
Commenced treatment during 1930, - -	65	1
Receiving treatment, 31st December, 1930, -	5	—

## Conditions treated and results :—

Condition.	Discharged.			Worse and Treat- ment Stopped.	Con- tinuing.	Stopped on own respon- sibility.
	No.	Well.	Improved.			
ADULTS.						
Glands of neck,	-	1	—	—	—	1
INFANTS AND CHILDREN.						
Debility,	-	26	14	6	1	2
Rickets, -	-	35	14	12	1	3
Marasmus,	-	9	2	2	1	2
Mastoid,	-	1	—	—	—	1
Adenitis,	-	1	—	1	—	—
Infantile Paresis,	-	1	—	—	1	—
Malnutrition, -	-	2	1	1	—	—
Infantile Hemiplegia,	1	—	1	—	—	—
Gastro-Enteritis,	-	1	1	—	—	—
Bronchitis,	-	5	1	1	2	1

## OUT-DOOR PATIENTS.

	Adults.	Infants and Children.
Under treatment, 1st January, 1930, - - -	3	7
Commenced treatment during 1930, - - -	8	31
Receiving treatment 31st December, 1930, - - -	5	7

## Conditions treated and results :—

Condition.	Discharged.				Worse and Treat- ment stopped.	Con- tinuing.	Stopped on own Respon- sibility
	No.	Well.	Improved.	I.S.Q.			
ADULTS.							
Adenitis, -	1	—	—	—	—	—	1
Glands of neck,	5	—	3	—	—	1	1
Debility, -	3	—	—	—	—	3	—
Rheumatism,	1	—	—	—	—	—	—
Lupus of face,	1	—	—	—	—	1	—
INFANTS AND CHILDREN.							
Rickets, -	8	—	1	—	2	1	4
T.B. Adenitis,	6	—	2	—	1	2	1
Bronchitis. -	1	—	—	—	—	1	—
Glands of neck,	17	1	5	1	—	2	8
Lupus of face,	1	—	—	—	—	1	—
Scoliosis, -	1	—	—	—	—	—	1
Infantile Paresis,	1	—	—	1	—	—	—
Debility, -	2	—	—	—	—	—	2
Skin, - -	1	1	—	—	—	—	—

INFECTIOUS DISEASE.—During the year 12 children and 1 adult were transferred to the County Hospital, Motherwell, and 1 child to Lightburn Hospital for treatment.

In May the Institution was emptied and disinfected on account of an outbreak of diphtheria, the original infection being a positive swab in a nurse. In December the Institution was quarantined for scarlet fever: there were no secondary cases.

The conditions necessitating transfer were as follows:—

To Motherwell Hospital—

Ophthalmia,	-	-	-	-	-	-	-	-	2
Diphtheria,	-	-	-	-	-	-	-	-	2
Positive Swab,	-	-	-	-	-	-	-	-	5
Mumps,	-	-	-	-	-	-	-	-	2
Puerperal Pyrexia,	-	-	-	-	-	-	-	-	1

To Lightburn Hospital—

Scarlet Fever and positive swab,	-	-	-	-	1
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PLACE OF RESIDENCE OF MIDDLE WARD CASES ARRANGED  
ACCORDING TO PARISH.

Avondale,	-	-	-	7	Dalziel,	-	-	-	1
East Kilbride,	-	-	-	5	Hamilton,	-	-	-	28
Stonehouse,	-	-	-	6	Old Monkland,	-	-	-	53
Blantyre,	-	-	-	55	New Monkland,	-	-	-	64
Bothwell,	-	-	-	210	Shotts,	-	-	-	69
Cambuslang,	-	-	-	92	Upper Ward,	-	-	-	29
Dalserf,	-	-	-	61	Lower Ward,	-	-	-	23
Cambusnethan,	-	-	-	26					



## COUNTY HOSPITAL, BLANTYRE.

*Physician-Superintendent.*—DOUGLAS BROWN, M.B., Ch.B., D.P.H.

*Sister-in-Charge.*—Miss KEIR.

**ACCOMMODATION.**—The accommodation for patients was 10 cots and 7 beds.

**STAFF.**—The staff consisted of charge-sister, 2 staff nurses, 3 probationers, 3 maids and 1 gardener.

**BUILDINGS AND GROUNDS.**—No work of any import was undertaken during the year. The Hospital was closed on 15/7/30.

**CASES TREATED.**—13 cases were under treatment on 1st January, 1930, and up to 15/7/30, 70 cases were admitted. All these cases were discharged before 15/7/30, three children being transferred to Calderbank House.

**PLACES OF RESIDENCE.**—The 70 cases admitted all resided in the Middle Ward. The parishes of residence were :—

East Kilbride, -	-	1	Dalserf, -	-	-	17
Blantyre, -	-	2	Hamilton, -	-	-	2
Bothwell, -	-	26	New Monkland, -	-	-	2
Cambuslang, -	-	9	Shotts, -	-	-	3
Cambusnethan, -	-	3				

**AGES OF PATIENTS.**—The ages of patients under treatment were as follows :—

**CHILDREN :—**

Months.		Years.		Total.
-6	6-12	1-2	2-5	
16	6	3	1	26

**MOTHERS :—**

Years.					Over	Total.
-20	-25	-30	-35	-40	40	
1	12	13	7	9	2	44

The conditions which necessitated admission were:—

CHILDREN:—

Mothers in hospital, - - - 11	Enteritis, - - - - 2
Malnutrition, - - - - 9	Marasmus, - - - - 1
Rickets, - - - - 2	Infantile Paralysis, - - - 1
	<hr/>
	26

MOTHERS:—

Post-natal—	Ante-natal—
Debility, - - - - 12	Albuminuria, - - - - 4
Abortion, - - - - 2	Debility, - - - - 2
Albuminuria, - - - - 2	Cardiac Disease, - - - - 3
Prolapsus Uteri, - - - - 2	Varicose Veins, - - - - 2
Puerperium, - - - - 2	Threatened Abortion, - - - 1
Metrorrhagia, - - - - 1	Hyperemesis, - - - - 1
Leucorrhœa, - - - - 1	Tapeworm, - - - - 1
Mastitis, - - - - 1	<hr/>
Varicose Ulcers, - - - - 1	14
Phlebitis, - - - - 1	
Pyorrhœa, - - - - 1	
<hr/>	
26	
Gynæcological—	Others—
Leucorrhœa, - - - - 2	Bronchitis, - - - - 1
Uterine Fibroid, - - - - 1	<hr/>
<hr/>	1
3	

RESULTS OF TREATMENT. — 47 cases were discharged well, 7 improved, 1 I.S.Q.; 8 were transferred to Bellshill Hospital, 5 to Calderbank House, and 2 to Motherwell Hospital.

No deaths occurred.

## COUNTY HOSPITAL, LANARK.

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*Physician-Superintendent.*—ALEX. FRASER, M.D., D.P.H.

*Sister-in-Charge.*—Miss KEIR.

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This hospital, formerly the Burgh of Lanark Infectious Diseases Hospital, was opened in the month of July as a Convalescent Home for Mothers and Children, taking the place of the institution at Blantyre, referred to on pages 400-401, and which it was found necessary to close as unsuitable. Only minor alterations were made as regards the buildings and grounds, but the extension of the staff accommodation will be necessary.

ACCOMMODATION.—There are two blocks of two wards each, one being kept for children, and one for mothers. The accommodation for patients is 20 cots and 16 beds.

STAFF.—The staff consists of charge-sister, 2 staff nurses, 3 probationers, cook, 2 ward maids, home maid and gardener. The home maid, laundry maid and gardener live out.

CASES TREATED.—The Hospital was opened on 31/7/31, and from that date 146 cases were admitted, 135 were discharged, leaving 11 cases under treatment at the end of the year.

PLACE OF RESIDENCE.—Of the 135 cases discharged, 125 resided in the Middle Ward, 7 in the Upper Ward, 2 in the Lower Ward, and 1 in the Burgh of Lanark. The parishes of residence of the patients were :—

Blantyre, - - -	22	Old Monkland, - - -	7
Bothwell, - - -	40	Shotts, - - -	2
Cambuslang, - - -	33	Carlisle, - - -	2
Cambusnethan, - - -	8	Lesmahagow, - - -	5
Dalserf, - - -	12	Burgh of Lanark, - - -	1
Hamilton, - - -	1	Cadder, - - -	2

AGES OF PATIENTS.—The ages of patients under treatment were as follows :—

CHILDREN :—

Months.		Years.		Total.
-6	6-12	1-2	2-5	
31	7	10	10	58

MOTHERS :—

Years.				Over	Total.
-20	-25	-30	-35	-40	
6	17	17	21	10	77

NATURE OF ADMISSIONS.—The conditions which necessitated admission were :—

CHILDREN :—

Mothers in hospital, - - -	39	Marasmus, - - - -	3
Malnutrition, - - -	16	Rickets, - - - -	1
Enteritis, - - - -	5	Prolapse of Bowel, - - -	1
		Prematurity, - - - -	1
			<hr/> 66

MOTHERS :—

Post-natal—				Ante-natal—			
Debility, - - -	64	Debility, - - - -	1				
Abortion, - - -	3	Hyperemesis, - - -	1				
Cardiac, - - -	6						
Albuminuria, - - -	2						2
Rheumatism, - - -	1	Gynæcological—					
Menorrhagia, - - -	1	Post operation debility, -	1				
	<hr/> 77						

RESULTS OF TREATMENT.—57 cases were discharged well, 60 improved, 16 I.S.Q., and 2 were transferred to Bellshill Hospital.

## GENERAL SANITATION.

In the report of the District Sanitary Inspector, which is incorporated, will be found an account of the work done under the headings "Housing," "Water Supply," "Drainage and Sewage Disposal," "Scavenging," "Nuisances," "Tents, Vans, and Sheds," "Workshops," "Sanitary Conditions of Dairies, Cowsheds, and Milkshops, &c."

### Milk (Special Designations) Order (Scotland), 1923.

During the year there were 15 producers in possession of a licence from the Local Authority to sell the various grades of milk under the above Order. These were as follows:—

Grade of Licence.			Name and Address of Licensee.
Certified,	...	...	Lord Hamilton of Dalzell, Dalzell Home Farm, Motherwell.
Do.,	...	...	County Council of the County of Lanark, Haimeyres Farm Colony, East Kilbride.
Do.,	...	...	Eben More & Co., Brackenhirst, by Airdrie.
Do.,	...	...	William Fleming, Auldtou, Ashgill.
Do.,	...	...	James Wilson, Westburn Farm, Cambuslang.
Do.,	...	...	John Hamilton, Low Mains Farm, East Kilbride.
Do.,	...	...	Lanarkshire Mental Hospitals Joint-Committee, Hartwood Home Farm, Hartwood.
Grade A (T.T.),	...	...	Mrs. James Murray, Stramolloch Farm, Chapelton.
Do.,	...	...	Messrs. A. & J. Gilchrist, Low Drumellog Farm, Strathaven.
Do.,	...	...	John Strachan, Udstonhead Farm, Strathaven.
Do.,	...	...	Alex. Wilson, South Carnduff Farm, Strathaven.
Do.,	...	...	Messrs. John Speirs, Ltd., Heatheryknowe, Bargeddie.
Grade A,	...	...	Andrew Wood, Nerston, East Kilbride.
Do.,	...	...	John Fleming, Bruntland, Waterloo.
Do.,	...	...	Hugh Raeside, Wester Farm, Bushby.

## Meat Inspections—Slaughterhouses, &c.

ALEXANDER CAMERON, M.R.San.I.

As General Superintendent of Abattoirs and District Meat Inspector, I have to submit the following report:—

It will be observed from Table I that the total number of animals slaughtered at the various abattoirs was 18,480, out of which 9,176 animals were found to contain disease in some form.

Of the 9,176, there were 1,506 carcasses totally or partially condemned, and 7,670 carcasses found with local conditions in which organs only were condemned, these combined being 47·58 per cent. of the total animals slaughtered, as compared with 36·71 per cent. the previous year.

Of the 9,458 cattle slaughtered at the various abattoirs, 180 were sent in by the County Veterinary Inspector under the Tuberculosis Order, and of these 158 were totally or partially condemned, and the remainder passed, being cases in which organs only were condemned.

Table II and III show in detail, for each slaughterhouse, the class of animals slaughtered, and the extent to which disease was prevalent, both in abattoirs and private slaughterhouses throughout the district.

Table IV shows the number of organs and the diseases for which they were condemned in those cases where organs only were condemned, in abattoirs and private slaughterhouses.

TABLE I.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.													
		Tuberculosis.								Other Diseases.					
		Carcases.				Organs only.		Carcases.				Organs only.			
Wholly.		Partially.		Wholly.				Partially.							
Class.	Num- ber.	No.	%.	No.	%.	No	%.	No.	%.	No.	%.	No.	%.		
Cows, -	6,183	338	5·46	931	15·05	2,730	44·15	51	·82	51	·82	2,278	36·84		
Heifers, -	1,973	12	·60	24	1·21	244	12·36	6	·30	2	·10	428	21·69		
Bulls, -	143	1	·69	2	1·39	12	8·39	—	—	—	—	27	18·88		
Bullocks.	1,159	1	·08	7	·60	93	8·02	—	—	1	·08	195	16·82		
Calves, -	1,332	19	1·42	—	—	3	·22	17	1·27	—	—	—	—		
Sheep, -	6,997	1	·01	—	—	5	·07	31	·44	3	·04	1,599	22·85		
Swine, -	693	1	·14	4	·57	29	4·18	2	·28	1	·14	27	3·89		
Total, -	18,480	373	8·40	968	18·82	3,116	77·39	107	3·11	58	1·18	4,554	120·97		



*Bellshill.*—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	2,711	222	411	1,166	29	42	1,298
Heifers, -	750	3	8	89	—	1	245
Bulls, -	76	—	—	4	—	—	21
Bullocks, -	264	1	1	13	—	1	67
Calves, -	38	—	—	—	—	—	—
Sheep, -	2,481	—	—	5	11	1	736
Swine, -	81	—	1	5	—	1	3
Total, -	6,401	226	421	1,282	40	46	2,370

*Bellshill.*—TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

DISEASE.	Cows.	Heifers.	Bullocks.	Sheep.	Swine.	Total.
Abscess, - - -	12	1	1	—	—	14
Actinomycosis, - - -	1	—	—	—	—	1
Anæmia, - - -	5	—	—	—	—	5
Braxy, - - -	—	—	—	1	—	1
Dropsy, - - -	1	—	—	—	—	1
Emaciation, - - -	2	—	—	2	—	4
Gangrene, - - -	—	—	—	1	—	1
Injury, - - -	18	—	—	6	1	25
Jaundice, - - -	2	—	—	—	—	2
Mammitis, - - -	1	—	—	—	—	1
Osteomyelitis, - - -	1	—	—	—	—	1
Pericarditis, - - -	2	—	—	—	—	2
Peritonitis, - - -	8	—	—	—	—	8
Pleurisy, - - -	3	—	—	1	—	4
Pneumonia, - - -	1	—	—	1	—	2
Septic Mammitis, - - -	2	—	—	—	—	2
Septic Metritis, - - -	7	—	—	—	—	7
Septic Pericarditis, - - -	3	—	—	—	—	3
Septic Peritonitis, - - -	2	—	—	—	—	2
	71	1	1	12	1	86

*Blantyre.*—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
Class.	Number.	Carcases.		Organs only.	Carcases.		Organs only.
		Wholly.	Partially.		Wholly.	Partially.	
Cows, -	1,394	80	285	562	15	5	588
Heifers, -	341	5	7	79	3	—	120
Bulls, -	4	1	1	—	—	—	3
Bullocks, -	281	—	5	29	—	—	70
Calves, -	794	13	—	1	9	—	—
Sheep, -	1,696	1	—	—	12	—	786
Swine, -	297	—	—	18	2	—	21
Total, -	4,807	100	298	689	41	5	1,588

*Blantyre.*—TABLE III.—OTHER DISEASES FOR WHICH ANIMALS WERE TOTALLY OR PARTIALLY CONDEMNED.

DISEASE.	Cows.	Heifers.	Calves.	Sheep.	Swine.	Total.
Distomatosis, -	—	—	—	7	—	7
Emaciation, -	2	—	1	2	1	6
Immaturity, -	—	—	3	—	—	3
Injury, -	3	—	—	—	—	3
Lymphadenitis, -	—	—	—	—	1	1
Melenesis, -	—	—	1	—	—	1
Pleurisy, -	1	—	—	1	—	2
Pneumonia, -	—	—	—	1	—	1
Peritonitis, -	3	2	1	1	—	7
Sarcoma, -	—	1	—	—	—	1
Traomation, -	1	—	—	—	—	1
Septic Mastitis, -	2	—	—	—	—	2
Septic Peritonitis, -	1	—	—	—	—	1
Pericarditis, -	2	—	—	—	—	2
Pyæmia, -	1	—	3	—	—	4
Jhone's Disease, -	4	—	—	—	—	4
	20	3	9	12	2	46

*Larkhall.*—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	1,197	35	215	628	6	3	85
Heifers, -	240	1	7	15	1	1	15
Bulls, -	13	—	1	3	—	—	1
Bullocks, -	144	—	1	6	—	—	14
Calves, -	168	3	—	1	7	—	2
Sheep, -	473	—	1	—	4	2	73
Swine, -	95	—	2	3	—	—	2
Total, -	2,330	39	227	656	18	6	192

*Larkhall.* — TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

DISEASE.	Cows.	Heifers.	Calves.	Sheep.	Total.
Carcinoma, - - - -	—	—	—	1	1
Gastric-Enteritis, - - - -	—	—	5	1	6
Immaturity, - - - -	—	—	1	—	1
Injury, - - - -	3	1	—	2	6
Pneumonia, - - - -	1	—	—	1	2
Peritonitis, - - - -	—	1	—	1	2
Pyæmia, - - - -	2	—	1	—	3
Pericarditis, - - - -	1	—	—	—	1
Septicæmia, - - - -	1	—	—	—	1
Septic Metritis. - - - -	1	—	—	—	1
	9	2	7	6	24

*Strathaven.*—TABLE II. — ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	682	12	10	300	1	1	127
Heifers, -	294	2	—	34	2	—	18
Bulls, -	29	—	—	3	—	—	2
Bullocks, -	20	—	—	—	—	—	1
Calves, -	153	1	—	—	3	—	—
Sheep, -	1,204	—	—	—	—	—	2
Swine, -	190	—	—	3	—	—	—
Total, -	2,572	15	10	340	6	1	150

*Strathaven.*—TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

DISEASE.	Cows.	Heifers.	Calves.	Total.
Badly Bled, - - -	—	—	2	2
Jhone's Disease, - -	1	1	—	2
Pyæmia, - - - -	—	—	1	1
Peritonitis, - - -	—	1	—	1
Septic Metritis, - -	1	—	—	1
	2	2	3	7

*Shotts.*—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	—	—	—	—	—	—	—
Heifers, -	28	—	—	—	—	—	1
Bulls, -	—	—	—	—	—	—	—
Bullocks, -	419	—	—	45	—	—	42
Calves, -	28	—	—	—	—	—	—
Sheep, -	73	—	—	—	—	—	—
Swine, -	—	—	—	—	—	—	—
Total, -	548	—	—	45	—	—	43

*Baillieston.*—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	16	5	3	4	—	—	1
Heifers, -	165	—	1	27	—	—	19
Bulls, -	3	—	—	2	—	—	12
Bullocks, -	23	—	—	—	—	—	1
Calves, -	126	2	—	1	—	—	—
Sheep, -	891	—	—	—	—	—	1
Swine, -	12	1	—	—	—	—	—
Horses, -	—	—	—	—	—	—	—
Total, -	1,236	8	4	34	—	—	34

*Stonehouse.* — TABLE II. — ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
Class.	Number.	Carcases.		Organs only.	Carcases.		Organs Only.
		Wholly.	Partially.		Wholly.	Partially.	
Cows, -	183	5	7	70	—	—	179
Heifers, -	155	1	1	—	—	—	10
Bulls, -	18	—	—	—	—	—	—
Bullocks, -	8	—	—	—	—	—	—
Calves, -	25	—	—	—	—	—	—
Sheep, -	179	—	—	—	2	—	—
Swine, -	18	—	—	—	—	—	—
Total, -	586	6	8	70	2	—	189

Two sheep were wholly condemned on account of injury.

### Private Slaughterhouses.

TABLE II.

District.		Cattle.	Animals Slaughtered.		
			Calves.	Sheep.	Swine.
Greengairs, -	-	127	—	78	8
Longriggend, -	-	125	—	101	21
Chapelhall, -	-	96	—	70	41
Glengowan, -	-	131	—	67	1
Newarthill, -	-	41	—	—	—
Cleland, -	-	235	—	71	1
Harthill, -	-	261	3	51	—
Total, -	-	1,016	3	438	72



TABLE III.—ANIMALS CONDEMNED—WHOLLY OR PARTIALLY.

Animals Slaughtered.	Tuberculosis.			Other Diseases.		
	Wholly.	Partially.	Organs.	Wholly.	Partially.	Organs.
Cows, -	1	22	79	—	—	18
Heifers, -	—	10	30	—	—	5
Bulls, -	—	—	3	—	—	—
Bullocks, -	—	1	3	—	—	—
Calves, -	—	—	—	—	—	—
Sheep, -	—	—	—	—	—	—
Swine, -	—	—	—	—	—	—
Total, -	1	33	115	—	—	23

TABLE IV.—RETURN OF DISEASES FOR WHICH ORGANS WERE CONDEMNED.  
DISEASES.

Organs Condemned.	Tuberculosis.	Abscess.	Actinomycosis.	Pericarditis	Pleurisy.	Pneumonia.	Cirrhosis.	Distomatosis.	Mammitis.	Neoplasms.	Bacterial Necrosis.	Angioma.	Jones' Disease.	Estrus Larvæ.	Nephritis.	Estrus Bovis.	Injury.	Congested.	Hydnophrosis.	Decomposition.	Cysts.				Total.
																					Echino- cocci.	Cenurus	Cerebralis	Cysticercus	
Heads, 1,298	—	46	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	1	—	1,347	
Tongues, 14	2	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42	
Lungs, 3,530	96	—	—	53	40	—	—	1	—	—	1	—	—	10	—	5	—	—	—	—	41	—	3	3,580	
Hearts, 31	—	—	8	—	—	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	1	—	—	44	
Livers. 877	362	1	—	—	—	711	2,956	1	7	54	24	27	—	—	—	—	2	—	—	—	80	2	183	5,260	
Stomachs, 442	693	16	—	—	—	1	8	1	—	—	3	33	—	—	—	1	—	—	3	1	—	—	—	1,196	
Bowels, 1,775	98	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1,908	
Kidneys, 337	2	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—	2	—	—	—	—	—	347	
Udders, 168	3	—	—	—	—	—	—	1,005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,176	
Uteri, 384	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	386	
Feet, —	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	24	—	—	—	—	54	
Total, 8,856	1,287	89	8	53	40	712	2,966	1,007	7	55	27	60	14	4	5	5	2	2	27	123	3	186	15,558		

Note.—This Table does not include the Viscera of Carcasses wholly or partially condemned.

**DISEASED UDDERS.**—It will be observed that the total number of cows slaughtered was 6,183. Of these, 338 were totally condemned on account of generalised tuberculosis, 76 of which showed evidence of tubercle in the udder. There were 931 cows partially condemned on account of various forms of localised tuberculosis, and of these 28 had udders affected. In addition to the foregoing, there were 2,730 cows in which the disease was so localised that organs only were condemned, and in 168 of these the udder was affected. Of the total cows slaughtered, 1,007 cases of indurated udder or other forms of chronic mammitis were found. Many of these cases might be called doubtful tubercle in the absence of microscopic examination.

Of the 1,973 heifers slaughtered, 12 were totally condemned, and 24 partially condemned. In 4 of the cases totally condemned the disease was present in the udder.

In dealing with emergency cases, all animals are prohibited from entering public abattoirs or private slaughterhouses unless accompanied by a veterinary certificate certifying that the animal is not suffering from a contagious disease, as scheduled under the Contagious Diseases (Animals) Act, except in cases of accident or consequent upon calving.

Where slaughtering takes place outside the slaughterhouse (farms, &c.), the requirements of the Meat Regulations (Scotland), 1930, are complied with.

The number of diseased animals found at the different abattoirs varied according to the class or quality of animals slaughtered, *e.g.*, at Bellshill, Blantyre, and to a slight extent at Larkhall, there is a turnover of plain cattle for boning purposes. Disease fluctuates according to quality of these animals. Quality generally varies in accordance with the purchasing power of the people.

The whole system of Meat Inspection is linked up with the County Bacteriological Laboratory, and when necessary histological and bacteriological work is carried out by the Bacteriologist.

**BUILDINGS.**—The accommodation in the seven abattoirs remains the same as last year, and is more than sufficient for the work done.

A certain amount of painter work within the abattoirs required to be done, but, as in previous years, this had the attention of the

abattoir staff during the quiet period, viz., the months of June and July. At several of the abattoirs fencing and other necessary repairs were carried out by tradesmen.

**PRIVATE SLAUGHTERHOUSES.**—Ten licences were granted for the slaughter of cattle, sheep, and pigs, and one licence where sheep only were slaughtered, and the arrangement for the inspection of meat still continues as previously reported, these private slaughterhouses being organised under the latest meat regulations. The work of inspection has gone smoothly, and the trade has in no way been hampered by the curtailed slaughtering periods.

Vans from adjacent counties and burghs continue to hawk the district, and these have been inspected regularly with satisfactory results. The regular inspections, both with regard to the local butchers and hawking vans inaugurated under the new Meat Regulations, have positively improved the quality of the meat in these districts. Neighbouring counties, who previously gave little attention to private slaughterhouses, are now evidently giving serious attention to the question of detailed meat inspection.

These inspections are carried out in conjunction with the usual supervision of the public abattoirs and private slaughterhouses, including the inspection of shops, cold stores, &c. The butchers owning the private slaughterhouses still continue to contribute towards the expense of making the necessary inspections at their premises, and the amount paid to the Local Authority this year was £98, as compared with £101 for the previous year. This sum was sufficient to cover all the expense in this area of the County.

A necessary standard of protection with regard to unsound meat in the private slaughterhouse area has been maintained, similar to that in areas where public abattoirs exist.

By-laws for the private slaughterhouses have been prepared, so far as the Public Health Department is concerned, and it is hoped that these will be submitted to the Local Authority and the Department of Health for Scotland at an early date, in order that the approval of the latter body may be obtained, and so put the inspection of the private slaughterhouses on a still more satisfactory basis.

The visits to private slaughter-houses and other places, outside abattoirs, were as follows:—

Private slaughterhouses, ... ..	936
Butchers' shops, vans, &c., ... ..	3,588

PUBLIC HEALTH (MEAT INSPECTION) REGULATIONS (SCOTLAND), 1930, ARTICLE 12.—No permits for meat stores were dealt with during the year.

COLD STORES.—In connection with the registration of cold stores, &c., as required by Article 13 of the Public Health (Meat) Regulations (Scotland), 1924, the Local Authority has made the necessary arrangements for same. These places are being attended to, as previously, under the Public Health Act. The number of cold stores is 100, and are as follows:—Ice, 86; mechanical, 13; not in use, 1.

During the year a large number of inspections were made to cold stores, and, generally speaking, their contents were found sound and the apartments kept in a satisfactory condition.

UN SOUND MEAT.—At abattoirs and private slaughterhouses all condemnations have been carried out with owner's consent. The total weight of meat condemned outside of abattoirs (including private slaughterhouses, fleshers' shops, and at farms where special licences for slaughtering were authorised) amounted to 2,776 lbs.

All condemned meat and residue from the offal business—which is in the hands of the Local Authority—throughout the district, continues to be treated in the digester at Bellshill, producing two product, viz., technical tallow and residue for manure. A quantity of the condemned meat and organs is sold to a knackery in the district, as also is the residue from the Bellshill digester.

Periodic visits were made to the Middle Ward Hospitals, and advice given regarding the butcher-meat supplies. Assistance was also given in supervising the piggeries at Motherwell and Bellshill Hospitals, and in most cases the fattened pigs were turned into bacon by the abattoir staff at Bellshill, for the use of the various Middle Ward Institutions.

## Report of the Sanitary Inspector.

### HOUSING.

The administrative procedure during the year 1930, which was summarised in the information supplied to the Department of Health for Scotland, in terms of their Regulations under the Housing Acts, is given in the following tabular statement and subsequent paragraphs :—

Number of dwellings inspected, ... ..	4,035
Number of houses found unfit for human habitation,	1,695
Representations to Local Authority,—1925 Act, ...	29
Closing Orders made,—1925 Act, ... ..	29
Number of dwellings dealt with by Closing Orders,	251
Representations to Local Authority,—1930 Act, ...	5
Demolition Orders made,—1930 Act, ... ..	3
Demolition Orders pending,—1930 Act, ... ..	2
Number of dwellings dealt with by Demolition Orders,	22
Defects remedied without making Closing Orders,	—
Number of dwellings made fit for human habitation after Closing Orders, ... ..	—

The general character of the defects usually found to exist, was principally dampness, due to various defects in construction, and the want of proper domestic and sanitary conveniences.

Although no action was taken by the Local Authority under Section 20 (1) of the Housing (Scotland) Act, 1925, and Section 40 (1) of the Housing, Town Planning, &c. (Scotland) Act, 1919, it should be explained that the Local Authority have taken action for the introduction of—

sinks, water-supply, and water-closets at 54 dwellings:  
sinks and water-supply at 13 dwellings; and  
water-closets at 157 dwellings.

all in terms of Section 246 of the Burgh Police (Scotland) Act, 1892, as applied to the County of Lanark by Section 68 (1) of the Lanarkshire County Council (Water, &c.) Order Confirmation Act, 1917.

No one-apartment houses were erected during the year, but the sanction of the Local Authority was given, in terms of Section 111 of the Housing (Scotland) Act, 1925, to the erection of 6 two-apartment dwellings by private builders, and of 64 two-apartment houses by the Local Authority.

No schemes under Part I of the Housing Act, 1930, relating to clearance or improvement of unhealthy areas, were in contemplation.

### Slum Clearance.

*Housing (Scotland) Act, 1930.*—The coming into force on 1st August of this Act marks another distinct step in Housing legislation, and should ensure more drastic action by Local Authorities in the removal of insanitary houses and slum areas; the financial inducements being designed to assist this purpose.

**CLOSING AND DEMOLITION ORDERS.**—Further progress was made during the year towards the closure of insanitary dwellings, and 29 representations comprising 251 dwellings were made to the Local Authority under Section 6 of the Housing (Scotland) Act, 1925, that the dwellings were in a state so dangerous or injurious to health as to be unfit for human habitation, and a Closing Order was made in every instance. Under the new Act of 1930, 5 representations comprising 35 dwellings were made under Section 16 (1) that the dwellings were unfit for human habitation, and not capable at a reasonable expense of being rendered so fit, and Demolition Orders were made in three cases, comprising 22 dwellings; the two cases pending being Gibson's Land, Waterloo, 6 dwellings, and 45-53 Carfin Street, New Stevenston, 8 dwellings.

The following is a note of the properties dealt with by Closing and Demolition Orders:—

Locality.	APARTMENTS.				Total.
	1	2	3	4	
Blantyre—					
1-15 and 2-24 Miller Street and 57-63 and 58-64 Hall Street,	16	12	—	—	28
Mossend—					
572-574 Main Street (1930 Act),	—	2	—	—	2



Locality.	APARTMENTS.				
	1	2	3	4	Total.
Holytown—					
Linrigg Row, Cottonhill, ...	13	9	—	—	22
179-183 Main Street, ...	—	5	1	—	6
Parkneuk, 324-326 Main Street,	—	2	—	—	2
14-18 (or 22-26) Carfin Street,					
New Stevenston, ...	2	2	—	—	4
91-95A (or 71-75) Jerviston					
Street, New Stevenston, ...	1	3	—	—	4
Overtown—					
Farm Houses, Gillhead, ...	1	1	—	—	2
Baxter's Land, Gillhead, ...	4	2	—	—	6
Forrest's Land, Gillhead, ...	18	—	1	—	19
Clark's Land, Gillhead, ...	4	—	—	—	4
Old Station, Gillhead, ...	1	—	—	—	1
Bentfoot, Overtown (1930 Act),	—	12	—	—	12
Larkhall—					
118-148 M'Neil Street, ...	16	—	—	—	16
34-52 Muir Street, ...	10	—	—	—	10
12 Church Street, ...	—	—	1	—	1
5 Low Glengowan, ...	2	—	—	—	2
9-11 Low Glengowan, ...	1	1	—	—	2
17-19 Low Glengowan, ...	2	—	—	—	2
Little Struther, Birkenshaw, ...	1	2	—	—	3
1-7 Toll Houses, Canderdyke-					
head, ...	2	5	—	—	7
Hamilton—					
31-46 Top Row, Allanton, ...	—	16	—	—	16
1 Meikle Earnock, ...	—	1	—	—	1
2-6 Meikle Earnock, ...	3	1	1	—	5
7-9 Meikle Earnock, ...	2	1	—	—	3
13 Meikle Earnock, ...	—	1	—	—	1
15 Meikle Earnock, ...	—	1	—	—	1
Greengairs—					
Darngavil Rows, ...	50	12	—	—	62
Uppertown Rows (Cupples), ...	—	7	2	—	9
Uppertown Rows (Clair), ...	8	—	—	—	8

Locality.	APARTMENTS.				
	1	2	3	4	Total
Mount Vernon—					
6-9 Burntbroom Row, ...	2	2	—	—	4
Salsburgh—					
52-62 and 68-70 West Row, Main Street, ...	—	8	—	—	8
Totals, ...	159	108	6	—	273

Of the above 273 dwellings dealt with, 169 were vacated, the tenants having been accommodated in Improvement Scheme houses of the Local Authority, and elsewhere. The remaining 104 dwellings will be vacated so soon as alternative accommodation is found for the tenants in Improvement Scheme houses, or otherwise.

*Retrospect.*—The following summary of the work done in the Middle Ward Area under the Housing Acts during the past decade shows (1) number of houses reported annually as uninhabitable; (2) number of houses dealt with annually by Closing Order; and (3) number of houses closed annually under Closing Orders:—

	(1)	(2)	(3)
1921, ...	74	—	—
1922, ...	1,968	—	—
1923, ...	94	—	—
1924, ...	100	—	—
1925, ...	724	22	22
1926, ...	534	294	294
1927, ...	188	773	766
1928, ...	287	1,011	1,005
1929, ...	199	585	538
1930, ...	1,695	273	169
Totals, ....	5,863	2,958	2,794

During the same period the Local Authority had finished and under construction at Improvement Schemes 1,696 new houses, of which 1,556 were occupied at the close of the year under review, and the Committee have presently under consideration the provision of additional houses under the Housing (Scotland) Act, 1930.

*Prosecution.*—Proceedings were instituted in Court against the factor and occupier of “closed” premises at 244 Hamilton Road, Cambuslang. The factor had obtained from the Local Authority permission to use the ground floor of the premises as a store for leather, but a week or so after permission had been granted, it was found that the premises were being used for the sale of second-hand boots and shoes, and a workman was employed doing repairs. After proof, the Sheriff acquitted the factor and found the occupier guilty, imposing on him a penalty of £2 or ten days’ imprisonment.

**DEMOLITION ORDERS.**—In terms of Section 10 (2) of the Housing (Scotland) Act, 1925, orders for the demolition of the following properties were made during the year by the Local Authority, viz. :—

117 Main Street, Holytown, ...	...	2 houses.
186 Main Street, Holytown, ...	...	3 houses.
131 Main Street, Holytown, ...	...	4 houses.
91 Main Street, Bellshill, ...	...	2 houses.
Ashley Grange, Bellshill, ...	...	5 houses.
319-331 High Street, Newarthill, ...	...	7 houses.
388-398 High Street, Newarthill, ...	...	6 houses.
273-275 High Street, Newarthill	...	2 houses.
277-283 High Street, Newarthill, ...	...	4 houses.
299-305 High Street, Newarthill, ...	...	4 houses.
269-271 High Street, Newarthill, ...	...	2 houses.
33-37 Greenrig Street, Uddingston, ...	...	3 houses.
3-9 Porterswell, Uddingston, ...	...	4 houses.
54-56 Wellgate Street, Larkhall, ...	...	3 houses.
13 and 15 Millheugh, Larkhall ...	...	2 houses.
23-29 Raploch Road, Larkhall, ...	...	6 houses.
35 Hamilton Street, Larkhall, ...	...	1 house.
3-5 Drygate Street, Larkhall, ...	...	4 houses.
54 Raploch Road, Larkhall, ...	...	2 houses.
56 Raploch Road, Larkhall, ...	...	2 houses.
Old Row, Birkenshaw, Larkhall, ...	...	3 houses.
Birkenshaw, Larkhall, ...	...	4 houses.
16-22a Drygate Street, Larkhall, ...	...	6 houses.
7 and 9 Drygate Street, Larkhall, ...	...	2 houses.
87 and 89 Wellgate Street, Larkhall, ...	...	22 houses.
16 Hamilton Street, Larkhall, ...	...	2 houses.
26 Hamilton Street, Larkhall, ...	...	1 house.

1-19 Millheugh, Larkhall, ... ..	4 houses.
91 London Street, Larkhall, ... ..	2 houses.
21-24 Long Row, Swinton, Baillieston, ...	8 houses.
4 and 6a-d Camp Row, Baillieston, ...	5 houses.
1 and 3 Springhill Road, Barrachnie, ...	2 houses.
40-47 Brick Kiln Row, Tollcross, ...	8 houses.
4-6 Boghall Street, Stonehouse, ... ..	2 houses.
94 New Street, Stonehouse, ... ..	1 house.
51-53 Lawrie Street, Stonehouse, ... ..	2 houses.
4 Townhead Street, Stonehouse, ... ..	1 house.
9 Green Street, Stonehouse, ... ..	1 house.

### Insanitary Dwellings.

The Department have continued to press for the introduction of modern domestic and sanitary conveniences, and, during the year, numerous inspections were made, and meetings held with the owners of properties. Difficulties are still being experienced in view of industrial depression and the continued high cost of carrying out improvements, but further progress has been made. The properties dealt with are briefly referred to as under:—

359-369 *Main Street, High Blantyre*.—5 one-apartment and 3 two-apartment dwellings, referred to on page 413 of last Annual Report. The necessary additional water-closet accommodation has not yet been provided.

338-358 *Main Street, and 2-4 School Lane, High Blantyre*.—A two-storey stone-built tenement, comprising 2 one-apartment, 5 two-apartment, 2 three-apartment, 1 four-apartment, and 1 five-apartment dwellings, referred to on page 413 of last Annual Report. The erection of the three proposed additional water-closets has not yet been commenced.

*Craighead Rows, Blantyre*.—106 two-apartment single-storey stone-built dwellings without water-closet accommodation, referred to on page 414 of last Annual Report. The owners submitted proposals for the provision of water-closet accommodation in the proportion of one closet to each two dwellings. These proposals were approved of by the Committee, and the fifty-three closets are now in use.

161-169 *Stonefield Road, Blantyre*.—2 one-apartment and 6 two-apartment attic dwellings without inside sinks and water supply, referred to on page 414 of last Annual Report. Only two of these dwellings now remain occupied, a further house having been vacated and closed during the year.

5 and 7 *John Street, Blantyre*.—12 one-apartment and 4 two-apartment dwellings, referred to on page 414 of last Annual Report. The question of introducing an inside sink and water supply to each dwelling is still under consideration.

4-14 *Alpine Street, Blantyre*.—24 one-apartment and 6 two-apartment dwellings without inside sinks and water supply, and adequate water-closet accommodation, referred to on page 414 of last Annual Report. No proposals have yet been received for the introduction of the necessary conveniences, and, owing to worsened conditions, it may be found necessary to deal with the property under Section 14 of the Housing (Scotland) Act, 1930.

16-26 *Alpine Street, Blantyre*.—20 one-apartment and 10 two-apartment dwellings, referred to on page 414 of last Annual Report. No progress has been made towards the provision of adequate water-closet accommodation, and it may also be found necessary to deal with this property under Section 14 of the Housing (Scotland) Act, 1930.

75-77 *Auchinraith Road, Blantyre*.—A two-storey tenement, comprising 16 one-apartment and 2 two-apartment dwellings, referred to on page 414 of last Annual Report. The question of providing adequate water-closet accommodation is still under consideration.

262-272 *Main Street, High Blantyre*.—No progress has been made towards the provision of additional water-closet accommodation at this two-storey tenement, comprising 3 one-apartment and 4 two-apartment dwellings, referred to on page 415 of last Annual Report.

27-31 *School Lane, High Blantyre*.—A two-storey tenement, comprising 2 one-apartment and 4 two-apartment dwellings, referred to on page 415 of last Annual Report. The question of providing adequate water-closet accommodation is still under consideration.

*Burnside, Springwell, Blantyre*.—Three single-apartment dwellings here without inside sinks and water supply and water-closet accommodation were converted into 1 three-apartment dwelling, and a bathroom with water-closet, and inside sink with water supply introduced.

*Douglas Park Square, Bellshill.*—Referred to on page 415 of last Annual Report. A few of the tenants of the one-apartment dwellings removed during the year. The dwellings remain vacant, and nothing has yet been done towards converting them into houses of two-apartments.

*Bothwellpark Rows, Bellshill.*—2 one-apartment, 152 two-apartment, and 2 three-apartment dwellings, referred to on page 415 of last Annual Report. The 156 new water-closets agreed to be provided in new porches at the entrance doors were satisfactorily completed. The existing privies and ashpits were demolished, and dustbin accommodation in the ratio of one bin to each four dwellings provided.

*Cockhill Place, Bothwellpark.*—11 two-apartment dwellings, referred to on page 415 of last Annual Report. On completion of the new public sewer, the owner was asked for his proposals as to the introduction of water-closet accommodation, and the abolition of the existing privy-middens. Arrangements were ultimately made for the provision of a water-closet at the stairhead for each two of the six first-floor dwellings, and a separate water-closet for each of the five ground-floor dwellings. The work was satisfactorily completed.

*Hattonrigg Terrace, Bellshill.* — 32 two-apartment dwellings, referred to on page 415 of last Annual Report. There was no further development during the year with regard to the introduction of inside sinks and water supply.

*10-16 and 11-21 Mauldslie Street, Bellshill.*—10 two-apartment single-storey dwellings with only two outside water-closets, and affected by excessive dampness of walls. The owner was asked for his proposals with regard to increased water-closet accommodation, and his attention drawn to the condition of the walls. He executed certain works to remedy the dampness, and it was arranged that the question of water-closet accommodation should be delayed for a time to ascertain the result of these.

*Thistlebank Terrace, Mossend.*—A two-storey stone-built property, comprising 4 two-apartment dwellings on the ground floor, and 1 one-apartment and 4 two-apartment dwellings on the first floor. The five upstairs dwellings were found to be served by only one water-closet, and, on this being brought to the notice of the owners, an additional water-closet was provided.



*Lorne Place, Uddingston.*—A two-storey tenement, comprising 9 two-apartment and 3 three-apartment dwellings, referred to on page 416 of last Annual Report. The erection of the 7 new water-closets approved of by the Committee was satisfactorily completed.

*Viewpark Farm Houses, Uddingston.*—A scullery, fitted with inside sink, water supply, and water-closet, was provided for each of these 2 two-apartment dwellings.

*Eastmuir Dairy, Uddingston.* — The want of water-closet accommodation for this four-apartment dwelling was brought to the attention of the owners, and a new bathroom, fitted with water-closet and wash-hand basin, was provided.

*Fallside House, Uddingston.*—The owner's attention was directed to the want of water-closet accommodation for the two-apartment dwelling at the Gate Lodge, and an inside water-closet was provided.

*North Lodge, Viewpark, Uddingston.* — This three-apartment dwelling was provided with a water-closet.

*Hillpark House, Bothwell.*—The owners were requested to provide a water-closet for the four-apartment dwelling situated at the stables. The matter is still under consideration.

114-130 *Stevenston Street, New Stevenston.* — 16 one-apartment, 9 two-apartment, and 1 three-apartment dwellings, referred to on page 417 of last Annual Report. Other two of the one-apartment dwellings were converted into a two-apartment house during the year, leaving only 2 one-apartment houses still to be dealt with thus.

*Lauchope Place, Chapelhall.*—18 one-apartment and 13 two-apartment dwellings, referred to on page 417 of last Annual Report. During the year an inside sink and water supply were introduced to each of the 6 one-apartment and 1 two-apartment dwellings forming the Back Row. A separate water-closet was also provided for the two-apartment dwelling, and 3 water-closets for the 6 one-apartment dwellings. All the houses in the property have now been dealt with, the 13 two-apartment dwellings having each been provided with an inside sink and water supply, and a water-closet, and the 18 one-apartment dwellings having each been provided with an inside sink and water supply, and water-closet accommodation in the proportion

of one closet to each two houses. The closets at the single-apartment dwellings have been so arranged that the dwellings can be readily converted into houses of two apartments with a water-closet each when circumstances permit.

*72-76 Main Street, Chapelhall.*—Adequate water-closet accommodation has not yet been provided at these 2 one-apartment and 1 three-apartment dwellings, referred to on page 417 of last Annual Report.

*40 Main Street, Chapelhall.*—1 two-apartment and 1 five-apartment dwellings, referred to on page 417 of last Annual Report. Adequate water-closet accommodation has not yet been provided.

*71-79 Main Street, Chapelhall.*—6 two-apartment and 2 three-apartment dwellings without water-closet accommodation. The matter was taken up with the owners, and proposals were received for the provision of three new water-closets in the existing earth-closet erections situated in the back-court. Exception was taken to the number and situation of these closets, and, at a meeting at the property with the owners' Architect, alternative proposals, including the possibility of providing a water-closet in the scullery of each dwelling, were discussed. The Architect was asked to send in amended proposals, but, when these were received, the only alteration was that, instead of providing three closets, four water-closets were to be provided in place of the three earth-closets. These further proposals were turned down by the Committee, who decided that the owners should be asked to provide an inside water-closet for each house. The matter was still being pursued at the close of the year.

*37-59 Carfin Road, Newarthill.*—2 single-storey rows, comprising 12 two-apartment dwellings, referred to on page 417 of last Annual Report. The ownership of this property changed during the year, and the new proprietor is being pressed to submit proposals for the introduction of the necessary inside sinks, water supply, and water-closet accommodation.

*2-20 Campsie Terrace (now 2-6 Carfin Road), Newarthill.*—3 one-apartment, 8 two-apartment, and 1 three-apartment dwellings, referred to on page 417 of last Annual Report. The rents of this property are presently distrained by the Local Authority to meet rates and taxes, and the question of introducing inside sinks and water supply and water-closet accommodation is in abeyance.

8-10 *Carfin Road, Newarthill*. — 1 one-apartment and 1 three-apartment dwellings without water-closet accommodation. After negotiations, the owner submitted proposals for the introduction of an inside water-closet to each dwelling. The Committee approved of the proposals, and permission was given for the work to proceed.

82-84 *Carfin Road, Newarthill*.—After negotiations, the owner of these 2 two-apartment dwellings submitted proposals for the provision of a water-closet in the scullery of each house. The Committee approved of the proposals, and the work has been completed.

122-126 *Carfin Road, Newarthill*.—1 one-apartment and 2 two-apartment dwellings. The lack of water-closet accommodation was brought to the notice of the owner, who ultimately submitted proposals for the provision of two new water-closets, the occupancies at the property to be reduced to two when there is an opportunity of adding the one-apartment dwelling at No. 122 to the two-apartment dwelling at No. 124. These proposals were approved of by the Committee, but the work had not been commenced at the end of the year.

28-36 *High Street, Newarthill*.—The owner has been asked to introduce an inside sink and water supply to the two-apartment dwelling at No. 30, which is presently without these conveniences.

101-115 *High Street, Newarthill*.—2 one-apartment and 5 two-apartment dwellings without inside sinks and water supply, and water-closet accommodation. After negotiations, the owner submitted a plan showing the proposed provision of a new scullery fitted with sink and water supply, water-closet, and coal-cellar, for each of 4 of the two-apartment dwellings, a water-closet and sink in the existing sculleries of the remaining two-apartment dwelling and 1 of the one-apartment dwellings, the 2 one-apartment dwellings to be made into a house of two apartments at the first opportunity. These proposals were approved of by the Committee, and the work is in progress.

117-129 *High Street, Newarthill*.—5 two-apartment and 1 three-apartment dwellings without water-closet accommodation. After negotiations, the owner submitted proposals for the provision of four water-closets on the ground floor for the use of the six dwellings, separate accommodation to be provided later at the stairhead for the three first-floor tenants. The Committee agreed to accept these pro-

posals as a temporary arrangement, and without prejudice to their right to call for the provision of a water-closet for each dwelling whenever they consider this expedient. The work is in progress.

154-176 *High Street, Newarthill*.—7 two-apartment and 1 four-apartment dwellings. The lack of adequate water-closet accommodation for the two-apartment dwellings was brought to the notice of the owner, and proposals were ultimately adjusted with him for the provision of an inside water-closet for each of the three upstairs dwellings numbered 154, 156 and 158 and two water closets for the three upstairs dwellings numbered 168A, 168B, and 170, the downstairs dwelling numbered 166 to be served by the existing water-closet under the stair. The Committee approved of these proposals, and permission has been given for the work to proceed.

182-232 *High Street and 1-11 Mosshall Street, Newarthill*.—14 one-apartment, 11 two-apartment, 2 three-apartment, and 1 four-apartment dwellings, served by a privy midden with four open privies and three pail closets, all in a dilapidated condition. The question of introducing water-closet accommodation was taken up with the Agents, and a meeting held with them at the property, when the whole matter was discussed. Proposals were thereafter submitted for the provision of water-closet accommodation in the proportion of one closet to each two dwellings, but the erection of the closets has been delayed pending arrangements being made for the laying of the contemplated public sewer in Cleland Road.

6-8 *Clydeford Road, Cambuslang*.—Two three-storey tenements, each comprising 5 one-apartment and 8 two-apartment dwellings, referred to on page 418 of last Annual Report. As none of the tenants removed, no further conversion of the one-apartment houses into dwellings of two apartments took place during the year.

3 *Church Street, Cambuslang*.—A four-storey tenement now comprising 11 one-apartment and 3 two-apartment dwellings, referred to on page 418 of last Annual Report. The owners were again pressed to submit proposals for increased water-closet accommodation, but nothing was forthcoming by the end of the year.

4 *Colebrooke Street, Cambuslang*.—A three-storey tenement, comprising 6 one-apartment and 5 two-apartment dwellings, referred to on page 418 of last Annual Report. Owing to structural difficulties

and lack of space for the erection of additional water-closet accommodation, the owner proposed, as an alternative, to convert the 4 one-apartment dwellings on the ground floor into two houses of two apartments, and the existing water-closets will then give accommodation in the proportion of one closet for each three occupancies. The matter is still under consideration.

31 *Colebrooke Street, Cambuslang*. — A three-storey tenement, comprising 7 one-apartment and 7 two-apartment dwellings, with inadequate water-closet accommodation. The owners were communicated with, and they submitted a plan showing a proposed tower of three additional water-closets. These, with the existing conveniences, will give two closets on the ground floor for four tenants, two closets on the first floor for five tenants, and two closets on the second floor for five tenants. The Committee accepted these proposals as being the best arrangement which could be made in view of existing structural conditions, and permission has been given for the work to proceed.

33 *Glasgow Road, Cambuslang*.—A three-storey tenement, comprising 4 one-apartment and 6 two-apartment dwellings, with inadequate water-closet accommodation. The factor was requested to submit proposals for increased accommodation, but, rather than do this, he suggested that the 4 one-apartment dwellings should be added to the two-apartment dwellings adjoining, thus leaving six occupancies for the two existing water-closets. The matter is still under consideration.

60 *Glasgow Road, Cambuslang*. — A four-storey tenement, comprising 5 one-apartment and 8 two-apartment dwellings and 2 ground-floor shops, without adequate water-closet accommodation. On being communicated with, the owners submitted a plan showing the proposed provision of three new water-closets in a tower built against the back wall of the property. These, with the existing water-closets, will give accommodation in the proportion of one closet for the two shops, two closets for the five dwellings on the first floor, two closets for the four dwellings on the second floor, and two closets for the four dwellings on the third floor. The Committee agreed to accept these proposals as a temporary arrangement, and without prejudice to their right to call for a water-closet for each house whenever they deem it expedient to do so. Permission was given for the work to proceed.



*103 Main Street, Cambuslang.* — A three-storey tenement, comprising 1 two-apartment and 4 three-apartment dwellings and 3 shops, with only one water-closet for the eight occupancies. The matter was taken up with the owners, who submitted a plan showing the proposed provision of a new water-closet on the first floor for the three dwellings there, and a new water-closet on the second floor for the two dwellings there, the existing water-closet (situated in the close) to be for the use of the two shops. The Committee agreed to accept these proposals as a temporary provision, and without prejudice to their right to call for a water-closet for each house whenever they consider it expedient to do so. Permission was given for the work to proceed.

*Mavismill, Hallside, Cambuslang.* — The question of introducing a gravitation water supply to this three-apartment dwelling, referred to on page 418 of last Annual Report, is still under consideration.

*Clydesdale Rows, Wishaw.*—2 one-apartment, 42 two-apartment, 2 three-apartment, and 3 four-apartment dwellings, referred to on page 418 of last Annual Report. Such tenants as could be accommodated in two-apartment houses were removed to Wemysshill Improvement Scheme, and the remaining 21 families will be offered accommodation at Netherton when the three-apartment Improvement Scheme houses there are ready for occupation.

*Mitchell Place, Morningside.* — 29 two-apartment dwellings, and *School Row, Chapel*, 6 two-apartment dwellings, referred to on page 418 of last Annual Report. The question of providing modern sanitary conveniences is still held up, owing to the lack of sewerage facilities.

*2-13 Store Row, Newmains.*—Inside sinks and water supply have not yet been provided at these 11 dwellings, referred to on page 419 of last Annual Report, and the property will probably be dealt with by a Demolition Order under the Housing (Scotland) Act, 1930.

*Stane Place, Shotts.* — Referred to on page 419 of last Annual Report. The remaining 24 one-apartment back-to-back dwellings have not yet been dealt with under the Housing Act with a view to closure.



190-196 *Hamilton Street, Torbothie*.—4 two-apartment dwellings without water-closet accommodation, referred to on page 419 of last Annual Report. The necessary water-closets have not yet been provided.

*Gladstone Place, Overtown*.—1 one-apartment, 3 two-apartment, and 1 five-apartment dwellings, referred to on page 419 of last Annual Report. During the year two water-closets were erected for the 3 two-apartment houses, and the one-apartment house was vacated, but the water-closet for the five-apartment house had not been commenced at the end of the year.

*Clydesdale Place, Overtown*.—1 two-apartment, 1 three-apartment, and 1 five-apartment dwellings, referred to on page 419 of last Annual Report. The three water-closets approved of by the Committee were satisfactorily completed.

*Bentfoot, Overtown*.—12 two-apartment dwellings, referred to on page 420 of last Annual Report. Proposals were not forthcoming for the introduction of the necessary inside sinks and water supply, and, the property having fallen into an insanitary condition, an inspection was made and a Representation submitted to the Local Authority, in terms of Section 16 of the Housing (Scotland) Act, 1930. The Local Authority passed a Demolition Order on the dwellings, and the tenants are being offered Improvement Scheme houses.

*Hayfield Place, Overtown*.—3 two-apartment and 1 four-apartment dwellings, referred to on page 420 of last Annual Report. A meeting was held at the property with the owner, when the question of providing water-closet accommodation was discussed. He agreed to erect two outside water-closets immediately against the back wall of the two-apartment dwellings, and provide a bathroom with water-closet for the four-apartment dwelling. The work has been satisfactorily completed.

*Meadowview, Overtown*.—2 one-apartment and 2 two-apartment dwellings without inside sinks and water supply and water-closet accommodation, referred to on page 420 of last Annual Report. No proposals were received for the necessary conveniences, and, as the

dwellings are falling into an insanitary condition, they will probably be dealt with by way of a Demolition Order under the Housing (Scotland) Act, 1930.

*Old Schoolhouse, Back Road, Overtown.*—Nothing was done during the year towards the provision of water-closet accommodation for these 2 two-apartment dwellings, referred to on page 420 of last Annual Report.

*Roseview, Overtown.*—5 two-apartment, 3 three-apartment, and 2 four-apartment dwellings, referred to on page 420 of last Annual Report. The 10 proposed new water-closets were satisfactorily completed.

*Smithy Row, Overtown.*—6 two-apartment and 2 three-apartment dwellings, referred to on page 420 of last Annual Report. The four new water-closets agreed to be accepted by the Committee were satisfactorily completed, but the necessary inside sink and water supply for each dwelling have not yet been introduced.

*Garrison View, Overtown.*—The three bathrooms fitted with water-closet for these three dwellings, referred to on page 420 of last Annual Report, were satisfactorily completed.

*Ardgour, Gowkthrapple.*—Water-closet accommodation has not yet been provided at these 3 two-apartment and 1 three-apartment dwellings, referred to on page 420 of last Annual Report.

*Wheatpark, Overtown.*—A water-closet is being provided for these 2 two-apartment dwellings.

50-58 *Burnbrae Road, Shotts.*—2 one-apartment, 2 two-apartment, and 1 three-apartment dwellings. Negotiations are proceeding with the owner for the erection of three new water-closets for the five dwellings, and the introduction of an inside sink and water supply to each.

*Cornsillock Rows, Dalserf.*—Continued industrial distress in the area still precludes steps being taken towards the provision of proper domestic and sanitary conveniences at these 60 two-apartment dwellings, referred to on page 421 of last Annual Report.

*Ayr Road Rows, Dalserf.*—40 two-apartment dwellings, referred to on page 421 of last Annual Report. The tenants of the remaining 16 dwellings were removed to Improvement Scheme houses at Ashgill-head, and the rows are now totally demolished.

*Swinhill Terrace, Dalserf.*—49 two-apartment, 2 three-apartment, and 1 four-apartment dwellings without proper sanitary conveniences, referred to on page 421 of last Annual Report. Industrial depression in the locality still delays the provision of the necessary conveniences.

36-50 *Raploch Street and 7-9 Crossgates Street, Larkhall.* — 13 one-apartment and 4 two-apartment dwellings without inside sinks and water supply and adequate water-closet accommodation, referred to on page 421 of last Annual Report. The occupancies here have been reduced to 3 one-apartment and 9 two-apartment dwellings, and an inside sink and water supply provided for each dwelling.

60-70 *Raploch Street, Larkhall.* — 6 one-apartment dwellings, referred to on page 421 of last Annual Report. Arrangements have not yet been made for the provision of inside sinks and water supply and adequate water-closet accommodation.

17 *Hill Street, Larkhall.* — The owner is endeavouring to gain possession of this two-apartment dwelling, referred to on page 422 of last Annual Report, and a water-closet has not yet been provided in lieu of the existing pail privy.

2-10 *North Street, Larkhall.*—The work of providing inside sinks and water supply for these 5 two-apartment dwellings, referred to on page 422 of last Annual Report, has not yet been commenced, as the rents of the property are at present distrained for payment of local rates and taxes.

2-8 *Station Road and 49 Drygate Street, Larkhall.*—An additional water-closet has now been provided at these 4 one-apartment and 1 two-apartment dwellings, referred to on page 422 of last Annual Report.

149 *Raploch Street, Larkhall.* — This two-apartment dwelling, referred to on page 422 of last Annual Report, has now been provided with an inside sink and water supply.

*Hill Terrace, Netherburn.*—23 two-apartment single-storey brick dwellings, referred to on page 422 of last Annual Report. The question of providing proper domestic and sanitary conveniences is still in abeyance.

10-16 *Strutherhill, Larkhall.*—4 two-apartment dwellings without water-closet accommodation. After protracted negotiations, and the rejection of a scheme for the erection of two water-closets for the four dwellings, the judicial factor submitted proposals for the provision of a water-closet for each dwelling. The Committee approved of the amended proposals, and permission was given for the work to proceed.

28-30 *Strutherhill, Larkhall.*—The owner of these 2 two-apartment dwellings provided a new water-closet, and demolished the existing privy-midden.

38-40 *Strutherhill, Larkhall.*—The owner provided a water-closet inside each of these 2 two-apartment dwellings, and demolished the old privy-midden.

11-13 *Strutherhill, Larkhall.*—A new water-closet was provided for these two 2-apartment dwellings, and the old privy-midden was demolished.

29-47 *Strutherhill, Larkhall.*—10 two-apartment dwellings without water-closet accommodation. After much correspondence and service of the Statutory Notice, the factors submitted a plan showing the proposed provision of a new water-closet for each two dwellings. The Committee approved of these proposals as a temporary arrangement, and without prejudice to their right to call for a water-closet for each house whenever they consider it expedient to do so. The work is in progress.

3-11 *Miller Street, Glasford.*—Negotiations are proceeding with the owner for the provision of water-closet accommodation at these 10 two-apartment and 1 three-apartment dwellings.

*Udston Rows, Hamilton.*—Referred to on page 422 of last Annual Report. These dwellings will probably be dealt with by way of a Demolition Order under the Housing (Scotland) Act, 1930.

*Eddlewood Rows, Hamilton.*—Slow progress was made towards the completion of the sanitary improvements at these rows, referred to on page 422 of last Annual Report, water-closets for the dwellings at Block 2 being erected during the year. Only the back row now remains to be dealt with.

*Cadzow Rows, Hamilton.*—Referred to on page 422 of last Annual Report. In accordance with the owners' decision, other sixteen of the one-apartment dwellings, viz., 2-8 Simpson Street, 1-7 and 18-24 Bishop Street, and 17-23 Landale Street, were vacated and demolished during the year.

*Quarter Village.*—Referred to on page 423 of last Annual Report. Lack of sewerage facilities still precludes the provision of water-closet accommodation.

*Gartgill Square, Coatbridge.* — 22 one-apartment and 29 two-apartment single-storey brick dwellings, referred to on page 423 of last Annual Report. During the year complaint was made through the Department of Health for Scotland regarding the existing conditions, and a detailed report in the matter was submitted to the Local Authority, who forwarded a copy to the Department of Health. Following a further communication from the Department of Health directing attention to certain provisions of the Housing (Scotland) Act, 1930, &c., another report, of which the following is an excerpt, was submitted to the Local Authority, viz.:—"The problem presented "here is one which has received very serious consideration, and the "powers of the Local Authority under the various Sections referred "to by the Department of Health have been fully discussed in relation "thereto. Action could be taken under Section 14 of the Housing "(Scotland) Act, 1930, but the estimated cost of providing inside "sinks, water supply, water-closets, wash-houses, and coal-cellars, "executing general repairs to the dwellings, providing drainage, and "making good the roads of access, would amount to about £2,500, "or about £50 per house. The owners would probably refuse to "carry out the works, and I could not advise the Local Authority to "proceed in terms of the Statute and incur such expenditure on a "type of dwelling which we wish to see swept away." The matter is still under consideration.

157-163 *Main Street, Baillieston.*—An additional water-closet has been provided at these 11 two-apartment and 1 four-apartment dwellings, referred to on page 423 of last Annual Report.



*Boghall Square, Broomhouse.*—Referred to on page 423 of last Annual Report. No further houses were closed during the year, but a demolition order will be made so soon as the Improvement Scheme houses are available.

*Eastfield Row, Harthill.*—8 two-apartment dwellings, and *Peden Place, West Benhar*, 15 two-apartment dwellings, referred to on page 423 of last Annual Report. All the dwellings at Eastfield Row continue to be occupied, and five tenants remain at Peden Place.

*Russell's Land, Cleland.*—8 one-apartment, 2 two-apartment, and 2 three-apartment dwellings, referred to on page 423 of last Annual Report. The question of providing additional water-closet accommodation is still under consideration.

*29-31 Omoa Road, Cleland.*—Inside sinks, water supply, and water-closet accommodation have not yet been provided at these 5 one-apartment dwellings, referred to on page 423 of last Annual Report.

*Cityside, Greenhill, Cleland.*—5 one-apartment and 2 two-apartment dwellings, referred to on page 424 of last Annual Report. There were still two tenants here at the close of the year.

*192-206 Station Road, Shotts.*—The owner of these 8 two-apartment dwellings without inside sinks and water supply is abroad, but the question of introducing the necessary conveniences has been taken up with his Law Agents.

*262-268 Station Road, Shotts.*—An inside sink and water supply have been provided for each of these 4 two-apartment dwellings.

*87-95 Rosehall Road, Shotts.*—Arrangements were made with the owner for the erection of a scullery fitted with inside sink and water supply, together with a water-closet and coal-cellar, for each of these 5 one-apartment dwellings. The work is in progress.

*Burnside Cottage, Shotts.*—A water-closet is to be provided for this two-apartment dwelling, but the work had not been started at the end of the year.



1-15 *Gray Street, Shotts*.—3 two-apartment and 12 three-apartment dwellings. After negotiations, plans were adjusted with the owners for the provision of an inside sink and water supply, water-closet, and washboiler, in the existing scullery annexe of each of 13 of the dwellings, and an inside sink and water supply and conveniently situated water-closet for each of the remaining two dwellings. The Committee approved of the proposals, and the work is in progress.

*Main Street, Salsburgh*.—The owner of 2 two-apartment and 1 three-apartment dwellings here agreed to provide a water-closet in the existing scullery of each, and the work was satisfactorily completed. Negotiations are proceeding with the owner of other two dwellings for the introduction of inside sinks, water supply, and water-closet accommodation.

3-9 *Bellside Road, Cleland*.—The owners of these 4 two-apartment dwellings were asked to provide inside sinks and water supply and water-closet accommodation. No proposals had been received at the close of the year.

17 *Biggar Road, Cleland*.—Negotiations are proceeding for the introduction of water-closet accommodation at these 1 one-apartment and 1 two-apartment dwellings.

42-44 *Biggar Road, Cleland*. — A water-closet was provided for each of these 2 two-apartment dwellings, and the existing privy and ashpit abolished.

WATER SUPPLY, CLOSET ACCOMMODATION, &c.—The following table prepared in connection with the Department of Health's circular requesting the information, shows the number of closets on the conservancy system converted to the water-carriage system, as well as the number of privies, &c., remaining at the end of the year; also the number of houses without water supply, &c. It should be noted, however, that many of the dwellings shown in the table as still having inadequate sanitary conveniences are on the list for closure under the Local Authority's Scheme for the Improvement of Insanitary Areas, and will be swept away in due course:—

TABLE SHOWING NUMBER OF OCCUPIED HOUSES IN POPULOUS PLACES WITHIN THE DISTRICT, AND THE NUMBER OF COMMON WATER-CLOSETS, DRY CLOSETS, PRIVY-MIDDENS, AND ASPITS, SERVING 2, 3, 4, AND 5 OR MORE TENANTS, RESPECTIVELY, ALSO THE NUMBER OF HOUSES WITHOUT WATER SUPPLY AND SINK INSIDE THE HOUSE.

Locality.	Number of Occupied Houses.	Water-Closets.	Dry Closets.	Privy-middens.	Asphits.	Houses without water and inside sink.
Aitkenhead, &c.,	2	3	4	5	2	5
Baillieston, -	172	9	28	—	—	30
Bellsill, &c., -	98	41	53	13	—	99
Blantyre, -	3,234	174	115	6	8	11
Bothwell, -	3,239	219	171	26	—	81
Busby, -	893	31	3	—	—	2
Calderbank, -	175	—	—	—	—	—
Carmichael, -	465	—	—	—	—	—
Carmichael, -	5,730	461	214	8	15	36
Carmichael, -	877	27	21	—	2	3
Cleland, &c., -	676	38	22	—	—	—
Dalziel, &c., -	324	33	—	5	17	2
East Kilbride, -	643	34	14	—	20	10
Gartlea, -	79	—	—	—	8	—
Glenogowan, &c., -	438	15	—	—	—	66
Hamilton Road, -	104	3	—	18	2	19
Holytown, &c., -	2,403	91	72	—	—	—
Larkhall, -	2,783	408	76	7	4	5
Newarthill, -	553	39	5	—	2	1
Newmains, -	901	116	16	1	16	13
Salsburgh, -	181	10	—	—	1	1
Shotts, &c., -	2,070	185	24	11	16	14
Stonehouse, -	823	141	5	7	9	50
Strathaven, -	1,990	100	29	3	6	10
Uddingston, -	1,882	172	25	—	—	2
Waterloo, &c., -	783	52	3	29	—	15
Totals,	33,513	3,001	1,458	88	25	16
				12	125	87
				56	94	59
				43	32	46
				18	3	172
				6	10	18
				3	6	43
				87	59	46
				94	18	1,700

SEASONAL WORKERS.—No intimations from employers as to the number of workers proposed to be employed, or applications by farmers for the approval of the Local Authority with regard to accommodation were received during the year.

HOUSING (RURAL WORKERS) ACT, 1926.—During the year 25 applications were received for assistance in aid of the reconstruction and improvement of 48 dwellings for the accommodation of agricultural workers and other persons whose economic condition is substantially the same as such workers, and a grant was sanctioned by the Local Authority in each case.

RENT AND MORTGAGE INTEREST (RESTRICTIONS) ACTS, 1920 TO 1925.—The number of applications by tenants for a certificate of the Local Authority as to the insanitary state of repair of their dwellings was 32. In every instance a careful inspection of the premises was made, and a report submitted for the consideration of the Committee. Certificates were granted by the Committee in 28 instances, one was refused, and three applications were withdrawn.

Intimation was sent to the owner of each dwelling giving details of the defects found, and in most cases repairs were immediately carried out.

The following table shows the number of certificates granted since the commencement of the Act, and the cases in which repairs were executed :—

Parish.	Number of Certificates Granted.	Houses in which Repairs have been Executed.	Number still being dealt with.
Avondale, ... ..	12	12	—
East Kilbride, ... ..	8	8	—
Glasford, ... ..	5	5	—
Stonehouse, ... ..	17	17	—
Blantyre, ... ..	233	220	13
Bothwell, ... ..	443	412	31
Cambuslang, ... ..	174	161	13
Cambusnethan, ... ..	47	47	—
Dalserf, ... ..	290	286	4
Dalziel, ... ..	2	2	—
Hamilton, ... ..	39	39	—
New Monkland, ... ..	69	66	3
Old Monkland, ... ..	550	535	15
Shotts, ... ..	309	295	14
Total, ... ..	2,198	2,105	93

*Applications by Landlords.*—No applications were received from owners of houses, in respect of which certificates had previously been granted to the tenants, requesting reports of the Local Authority to the effect that the houses were now in a reasonable state of repair.

### **Ruinous Buildings.**

The following ruinous or dangerous buildings were dealt with during the period under review, in terms of Section 191 of the Burgh Police (Scotland) Act, 1892, as applied to the County by Section 10 (2) of the Local Government (Scotland) Act, 1908:—

*Stonehouse.*—At 4 Townhead Street, Stonehouse, a dilapidated building comprising an empty one-apartment dwelling, the subject of a recent Closing Order, was partly demolished and the remainder made secure, after service of a notice on the owner. The chimney-head of a building at 6 Townhead Street, Stonehouse, which was found to be in a ruinous state and dangerous to passengers, was rebuilt after the owner's attention had been directed to the matter.

*Blantyre.*—A two-storey building, comprising stables with lofts above situated to the rear of Commercial Place, Stonefield Road, Blantyre, was reported as being dangerous to passengers, and, after negotiations with the owner's agents, the building was reconstructed.

Complaint was made as to the dangerous condition of an outside stair giving access to dwellings at 214 Glasgow Road, Blantyre, and a notice was served on the owner, who afterwards caused the necessary repairs to be duly executed.

At 3-13 Greenside Street, Blantyre, one of the outside stairs giving access to dwellings at this partly-condemned property was reported to be in a dangerous condition, and, after service of a notice on the owners, the stair was demolished.

*Bellshill.*—The chimneyhead of a back property and the wash-house at the rear of same, situated at 21 North Road, Bellshill, which property had been the subject of a Closing Order, were found in a state dangerous to passengers, and notice was served on the owner, who caused the site to be fenced off to prevent trespassers.

A derelict brick building at the rear of the Pavilion Theatre, Mossend, was found to be dangerous owing to the loose condition of the brickwork. After a notice had been served on the owner, the

building was demolished with the exception of a small portion which was retained as a boundary wall. This wall in turn became dangerous owing to wilful destruction by children, and a further notice was served, after which the wall was demolished.

A self-contained cottage known as Brigbrae Mill Cottage, Mossend, was found to have a dangerous slope towards the public highway. Notices were served on the owner and occupier, and, after the premises had been vacated they were demolished.

The single-storey property at 47 Crossgates, Bellshill, which had been the subject of a Closing Order was demolished by the owner on his being informed as to the dangerous condition of the building.

*Uddingston*.—A boundary wall which was formerly part of the front wall of Portland Place, Bellshill Road, Uddingston, closed under the Housing Act of 1925, was found to be dangerous to passengers. A notice was served on the owner, who subsequently demolished the wall.

At 111-113 Towie Place Uddingston, the coal cellar under an outside staircase became dilapidated and affected the stability of the stairs. After notice, the owners had the necessary repairs executed.

*Newarthill*.—The brick wall of a passage at 114 High Street, Newarthill, was found to be in a dangerous condition, and it was pulled down after the matter had been brought to the attention of the owner.

At 124 High Street, Newarthill, a dangerous gable wall was also taken down after service of a notice on the owner.

*Holytown*.—An empty one-storey property with attics at 113 Main Street, Holytown, was reported towards the close of the year to be in a dangerous condition, and the matter is still being dealt with.

*Cambuslang*.—A dilapidated mutual boundary wall at Rosebank Place, Cambuslang, was made secure after the attention of the respective owners had been directed to the matter.

*Larkhall*.—The Court proceedings referred to in last Annual Report in connection with the dangerous condition of the building at 20a Drygate Street, Larkhall, were withdrawn, as the owners had

the building taken down to the height of the door lintels, and the windows and door openings built up.

At 10-16 and 26-28 Millheugh, Larkhall, also referred to in last Annual Report, proceedings were instituted in Court against the owners of the building formerly comprising ten one-apartment dwellings which was in a dangerous condition, and the Sheriff granted an Order for the demolition of the building which was thereafter taken down.

The properties at 1, 3, 5, 17, and 19 Millheugh, Larkhall, which were the subject of Closing Orders and had been vacated, became ruinous and dangerous to passengers, and notices were served on the respective owners. Nothing was done, however, and as there was a dispute as to ownership of the subjects, it was found expedient to institute proceedings. Meantime, offers for the demolition of the buildings have been taken by the Department, but at the close of the year the necessary work had not been carried out.

The roof of a property which formerly comprised four houses at 99 Wellgate Street, Larkhall, was reported to be in a ruinous state and dangerous to passengers. A notice was served on the owner and the building was demolished.

At 52 Muir Street, Larkhall, an old property, the chimneyhead of which was in a dangerous condition, was pulled down after service of a notice on the owner.

*Harthill*.—Owing to mineral subsidence three dwellings at 98-102 Victoria Street, Harthill, became dangerous to the occupiers and to passengers, and notices were served on the owner and tenants. After some delay, the repair work necessary to make the premises secure was performed.

### **Drainage.**

There are now 30 Special Drainage Districts within the Middle Ward Area, two new districts having been formed during the year, namely, Ashgillhead, on 28th March, and Glassford, on 5th November.



*New Sewers.*—The following information was supplied by the County Drainage &c. Engineer as to sewers constructed during the year, viz. :—

*Special Drainage Districts.*—

	Lineal Yards.					
	6"	9"	12"	15"	18"	21"
Storm Relief Sewer, Cambuslang,	—	30	—	143	—	—
Edinburgh Road, Harthill, -	—	170	967	425	390	20
Candermill Sewer, Stonehouse,	62	—	—	—	—	—
Totals, - - -	62	200	967	568	390	20

*Housing Scheme.*—

Glenboig No. 2 Site, - -	—	83	—	—	—	—
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The number of connections made to sewers during the year was 74.

*Ashgillhead.*—As referred to in last Annual Report, a Special Drainage District to include the village of Ashgillhead, the County Housing Site at Ashgillhead, and the houses at Whinknowe, was formed on 28th March.

*Larkhall.*—An extension of the boundaries of the Larkhall Special Drainage District was made to include the County Housing Scheme and other subjects at Strutherhill.

*Strathaven.*—As the result of a complaint regarding the condition of a ditch at 16 Commercial Road, Strathaven, the matter was taken up with the various owners, and the ditch was cleaned out.

*Kittoch Burn, East Kilbride.*—The condition of this burn between Auldhouse Road and the Railway Bridge, East Kilbride, gave rise to complaint, and the bed was cleaned out. The burn is now in a satisfactory condition.

*Glassford.*—A Special Drainage District to include the village of Glassford was formed on 5th November, and the laying of the new sewers through the village is now in hand.

*Chapelton.*—Complaint was made by a farmer regarding the condition of a ditch which conveys sewage and surface water from the village of Chapelton through his field. Without prejudice to their position and without admitting liability in the matter, the ditch was cleaned out at the expense of the Local Authority.

*New Stevenston.*—The drains from New Stevenston House, referred to in last Annual Report, were connected to the main sewer, and the open ditch, which was the subject of numerous complaints in the past, was filled in.

*Gartlea.*—The moorland ditch at Wester Craigneuk Farm was found to be silted up with sewage sludge from the houses at Carlisle Road and South Biggar Road, Airdrie, and it was cleaned out for a distance of about 550 yards at the expense of the Local Authority.

*Greengairs.*—The Cameron Burn at Greengairs was again cleaned out for a distance of 1,050 yards in order to ameliorate the conditions referred to in last Annual Report. The work was carried out at the expense of the Local Authority. The district has been reported from time to time as one of the areas outwith Special Drainage Districts for which drainage facilities are required.

*Foul Ditches.*—A number of ditches throughout the district, other than those above referred to, into which sewage is discharged, was cleaned out during the year with satisfactory results.

### **Water Supply.**

The water supply from the various reservoirs belonging to the Local Authority was more than sufficient to meet all demands. Complaints were received as to local deficiencies, but these were mostly found to be due to deficient service pipes, and, on being brought to the notice of the respective owners, were remedied in every instance.

*New Reservoir at Camps.*—The new reservoir on Camps Water, near Crawford, was officially opened on 9th May, and the following is a brief description of the immense undertaking successfully carried out by Mr. James M'Millan, County Water Engineer.

The reservoir was constructed to augment the water supplies of the Middle Ward Area, which were mainly obtained from impounding reservoirs situated at Glengavel, near Strathaven, and at Dunside and Logan, Lesmahagow.

The new Camps reservoir embankment is an earthen one with a puddle clay core or wall carried down into water-tight rock across the valley. The embankment is about 90 feet high from the bed of the Camps Water, about 300 yards long across the valley and about 170 yards in thickness at the bottom.

The reservoir is one of the largest of its kind in Scotland and has a top water level of about 1,070 Ordnance Datum, and a storage capacity of about 2,100 million gallons, which is only a very little short of the total storage of all the reservoirs of the different Water Authorities in Lanarkshire. The reservoir and gathering ground will be capable of affording a daily supply of water to the consumer of about eight million gallons, and a supply of about four million gallons per day as compensation water to the stream

The water is excellent in quality, clear, and free from peat stain, and while it will be possible to filter the new supply through the existing filters situated at Glassford and Strutherhill, Larkhall, it is not proposed to do so unless in the case of exceptional storms.

The whole works in connection with the Camps Water Scheme were carried out by direct labour, and during the Great War about 200 German prisoners of war were employed on the works.

The estimated cost of the reservoir was about £410,000, and the whole scheme about £900,000.

*Extensions of Water Pipes.*—The following is a note, also prepared by the County Water Engineer, showing the extensions of water pipes carried out during the year :—

	Lineal Yards.			
	2"	3"	4"	10"
Bonanhill Extension, Avondale,	600	—	—	—
Salsburgh Housing, ... ..	—	90	—	—
Overton Road Housing, Halfway,	—	150	—	—
Carnbroe Housing, ... ..	—	120	—	—
Westthorn Housing, ... ..	—	80	—	—
Carmunnock Housing, ... ..	—	200	—	—
Glasgow Road, Blantyre, ...	—	—	550	—
Strathaven Road, East Kilbride,	—	—	—	120
Totals, ... ..	600	640	550	120

**WATER SAMPLES.**—Owing to complaints made regarding the quality of water supplies from private sources, samples were obtained from the following places and submitted for chemical analyses:—Townfoot of Priestgill, Strathaven; High Cleughearn, Strathaven; Snabe, Strathaven, Arpohill Farm, East Kilbride, Duncanrigg Cottage East Kilbride; Burntbroom Farm, Broomhouse; and Leadloch Farm, Fauldhouse.

*Townfoot of Priestgill Farm, Strathaven.*—Further samples of water were taken from wells at this farm, referred to in last Annual Report, and, with the exception of one taken from the Broomhill well, situated about 400 yards below the steading, all the samples proved on analyses to be unsatisfactory. The water from Broomhill well is of sufficient purity for domestic and dairy purposes, and it is the intention of the owner to pump water from this well to a storage tank above the steading from which it will gravitate to the steading. The matter was still in hand at the close of the year.

*Snabe Farm, Avondale.*—At the request of the owners a sample of water was obtained from a spring on the farm lands, which it was intended should be used by the occupier of a building to be converted into a ploughman's dwelling. The analysis proved the water to be quite suitable for domestic purposes.

*Cleughearn Estate, East Kilbride.*—Several samples of water from various sources were taken with a view to finding a proper supply for a wooden bungalow to be erected on the lands of this estate. One of the samples was found to be satisfactory and arrangements have been made for storing this supply for domestic purposes.

*Duncanrigg Cottage, East Kilbride.*—A sample of water procured from the storage tank situated in a field below this cottage was found on analysis to be unsatisfactory. Before the sample was taken, however, an adjoining burn had been in spate and probably overflowed into the tank. Another sample was taken after the tank had been cleaned out, and on analysis the water was found to be suitable. Arrangements were made to have the walls of the tank raised so as to prevent overflow from the burn gaining access to the tank.

*Arpohill Farm, East Kilbride.*—The analysis of a sample of water obtained from a tap in the boilerhouse at this farm afforded evidence of pollution, and the owner contemplates the introduction of a gravitation supply from the Local Authority's main.

*Low Kittymuir Farm, Stonehouse.*—The erection of a windmill and the provision of a storage tank at this farm, referred to in last Annual Report, have been completed and a satisfactory supply of water is being obtained.

*Leadloch Farm, Fauldhouse.*—As a result of complaints with regard to the condition of the domestic water supply at this farm, two samples were obtained for analyses, one from a shallow well situated on the west side of Braehead Farm, about 230 yards east of Leadloch, and the other from a supply pipe in the scullery, the source of which is an open pond which collects subsoil water from the moss on the north side of the farm buildings. The analysis of the first sample proved that the water was not sufficiently pure for domestic use, while the second sample was not analysed as the physical character of the water immediately indicated that it was unsuitable for domestic purposes. The matter has been taken up with the owner with a view to the introduction of a gravitation water supply.

*Burntbroom Farm, Broomhouse.*—The analysis of a sample of water from the pump well at this farm indicated that the water was unsuitable for dairy purposes, but no dairying is now carried on. The dwelling-house is provided with water from a gravitation supply.

### Scavenging.

There are still 25 Special Scavenging Districts within the Middle Ward Area, no new districts being formed during the year. The boundaries of Salsburgh Special Scavenging District were extended on 1st October.

The following is a summary of the work of scavenging carried out in each Special District:—

**AITKENHEAD, TANNOCHSIDE, AND BOTHWELL PARK.**—The work of collection and disposal of refuse three times weekly within this Special Scavenging District was carried out by a contractor in a satisfactory manner, the refuse being deposited in Fallside Quarry. The number of privies abolished during the year was 37.

**BAILLIESTON.**—The daily collection and removal of refuse within this Special District continued to be carried out satisfactorily by a staff in the direct employment of the Local Authority. During the summer months the refuse was deposited in Braehead Quarry, and

in winter it was tipped in Swinton sand-pit. The removal of the contents of ashpits in West Maryston was also carried out in a satisfactory manner by a local contractor.

*Common Stairs, &c.*—Six notices, in terms of Section 117 of the Burgh Police (Scotland) Act, 1892, were served on property owners, requiring them to whitewash or, at their option, to paint the walls and roofs of common passages and staircases at their respective properties, and in every instance the necessary work was executed.

BELLSHILL AND MOSSEND.—The refuse within this Special District was collected daily and deposited on waste ground at Boggsbrae by a staff under the control of the District Council, who employ a superintendent to direct the work.

A complaint was received during the summer as to offensive odours arising from stagnant water adjoining the coup at Boggsbrae, and the nuisance conditions were abated when the polluted water was subjected to chlorination, carried out by the local superintendent.

*Common Stairs, &c.*—Notices were served on twenty-five owners of property requiring the whitewashing or painting of common passages and staircases, and in each case the work was carried out.

BLANTYRE.—The work of scavenging in this Special District was carried out by a contractor under the control of the District Council, and supervised by their superintendent, the refuse being collected and removed daily to the public park, where it was used for levelling purposes.

*Common Stairs, &c.*—Twenty notices were served on owners of property requiring the whitewashing or painting of common passages and staircases, and in every case the work was duly carried out.

BOTHWELL.—The daily collection and removal of refuse within this Special District continued to be carried out in a satisfactory manner by a staff in the direct employment of the Local Authority. The contractor engaged during the winter months to collect and remove the contents of the ashbins three times weekly from the Housing Schemes also gave satisfaction. All refuse matter was deposited in Fallside coup.



BUSBY. — The refuse within this Special District was collected and removed twice weekly to Busby Glen by a contractor. Several complaints of a minor character were received during the year, but the service generally was carried out in a satisfactory manner.

CALDERBANK. — The collection and removal of refuse within this Special District was undertaken satisfactorily by a contractor who removed the refuse to farm lands.

CAMBUSLANG. — The daily collection and removal of refuse within this Special District was carried out satisfactorily by a contractor, all refuse being disposed of at Cambuslang destructor.

Towards the end of the year complaint was made by the engineer in charge of the destructor as to his inability to deal with all the refuse delivered. The congestion was caused through the large increase in the number of houses within the Rutherglen Special District, and it was found necessary to exclude refuse from the latter district at intervals, in order to dispose of the accumulated material.

*Common Stairs, &c.* — Forty notices to whitewash or paint common passages and staircases were served on owners of property, and in every instance the work was duly carried out. Sixteen notices in terms of Section 115 of the Burgh Police (Scotland) Act, 1892, were served on occupiers who had failed to sweep and wash regularly the common passages and stairs giving access to their premises, determining the rotation to be observed by them in future in such sweeping and washing, and intimating that, in the event of their failure to comply with the requirements thereof, proceedings would be taken against them. Sweeping and washing have since been regularly carried out.

CARMYLE AND MOUNT VERNON. — The daily collection and removal of refuse within this Special District was undertaken by a contractor, all refuse being deposited in Kenmuir sandpit. Several complaints of a minor character were received, and some slight irregularities in the conduct of the work were noted, but the work generally was carried out in a satisfactory manner.

*Common Stairs, &c.* — In ten instances notices were served on owners of property requiring them to whitewash or paint the common passages and staircases, and in each case the necessary work was duly carried out.

CLELAND AND OMOA. — The refuse in this Special District was collected and removed three times weekly to farm lands by a contractor. During the year three privy-middens were abolished.

DALZELL AND NETHERTON.—The scavenging in this Special District continued to be done satisfactorily by the staff in the direct employment of the Local Authority, the refuse being collected and removed daily to coups. Part of the time of the staff was devoted to the Hamilton Road Special Scavenging District.

EAST KILBRIDE.—The collection and removal of refuse three times weekly in this Special District was undertaken satisfactorily by a contractor, all the refuse being deposited in a coup provided by the Local Authority.

GARTLEA.—The weekly collection and removal of refuse in this Special District was carried out in a satisfactory manner by a contractor, the refuse being tipped in a coup near Carlisle Road.

GLENGOWAN AND CALDERCRUIX.—The refuse from ashbins in this Special District was collected and removed by a contractor twice weekly, and the contents of ashpits removed at least once a month, all refuse being disposed of on farm lands.

HAMILTON ROAD.—In this Special District the daily refuse collection was carried out in an efficient manner by the staff employed in the Dalzell and Netherton Special Scavenging District.

HOLYTOWN, NEW STEVENSTON, AND CARFIN.—The daily collection and removal of refuse in this Special District continued to be carried out by a staff in the direct employment of the Local Authority in a satisfactory manner, the refuse being disposed of at New Stevenston Destructor. The ashpits at Legbrannock were emptied weekly and the refuse deposited on farm lands by a contractor.

LARKHALL.—The refuse within this Special District was collected daily by a staff in the direct employment of the Local Authority, and deposited in coups.

NEWARTHILL.—The collection and removal of refuse to farm lands was satisfactorily undertaken by a contractor, the contents of ashbins being removed twice weekly, and the ashpits emptied at least once a month.

NEWMAINS.—The daily collection and removal of refuse in this Special District was carried out by a contractor, the material being deposited in coups. During the year a complaint was received with regard to the condition of the coup to the west of Victoria Street, and on an inspection being made it was found that the contractor's methods of tipping were not very satisfactory, and that a large quantity of paper was blowing about the surroundings. The matter was taken up with the contractor, whose attention was drawn to the conditions of this contract (one of which requires that all papers be gathered and burned), and remedied forthwith. Since then the contractor has given strict attention to the requirements of his contract.

SALSBURGH.—The refuse within this Special District was collected twice weekly and removed to farm lands by a contractor. Three privy-middens were abolished during the year.

*Extension of Boundaries.*—The boundaries of the Special Scavenging District were enlarged during the year to include the new County Housing Scheme adjoining the Edinburgh Road at Shottsburn.

SHOTTS AND DYKEHEAD.—The daily work of collection and removal of refuse within this Special District was carried out efficiently by a staff in the direct employment of the Local Authority, most of the refuse being deposited in coups and the remainder used on farm lands. Nine privy-middens were abolished during the year.

STONEHOUSE.—In this Special District the work of refuse collection and removal twice weekly was undertaken satisfactorily by a contractor, all the material being deposited in a coup rented by the Local Authority.

STRATHAVEN.—The daily collection and removal of refuse within this Special District is undertaken by a contractor. The refuse was deposited in a coup provided by the Local Authority.

*Common Stairs, &c.*—A notice was served on a property owner requiring the whitewashing or painting of a common passage, and the necessary work was duly carried out.

UDDINGSTON.—The refuse within this Special District was collected daily by a contractor and deposited in the coup at Fallside. The work was carried out in a satisfactory manner.

*Common Stairs, &c.*—Notices were served on twenty-two owners, in terms of Section 117 of the Burgh Police Act, requiring the whitewashing or painting of common passages and staircases, and in every instance the work was duly carried out. For failing to keep clean the common passage and stairs giving access to their premises, notices were served on six occupiers in terms of Section 115 of the Burgh Police Act, and sweeping and washing have since been regularly carried out.

WATERLOO AND OVERTOWN.—The scavenging of this Special District was undertaken by a contractor, all refuse from ashbins and earth-closets being collected twice weekly and the contents of ashpits removed at least once a month. The refuse collected was deposited in coups and on farm lands. During the year 28 privies were abolished.

HOUSING SCHEMES.—The collection and removal twice weekly from the dwellings at the following Housing Schemes still outwith Special Scavenging Districts was carried out by contractors under the supervision of the local Sanitary Inspectors, viz.:—Ashgillhead, Broomhouse, Carnbroe, Chapelhall, Drumpark, Eastfield, Ferniegair, Glenboig, Gleninavis, Greengairs, Kingshill, Meikle Earnock, and Westeraigs.

PROVISION OF DUSTBINS.—During the year notices in terms of Section 23 of the Burgh Police Act, 1903, were served on numerous owners of tenement houses within the Special Scavenging Districts requiring them to provide proper covered receptacles for refuse. In most cases suitable ashbins were provided after service of the notice, and the remainder were reported to the Committee with a view to proceedings in terms of Section 24 of the Act being instituted. No legal proceedings, however, were found necessary.

**WATER-CLOSETS.**—The following statement shows the number of privies which existed in Special Scavenging Districts prior to the formation of same, also the number since abolished and water-closet accommodation provided in lieu, viz. :—

District.	Privies.	Abolished.	District.	Privies.	Abolished.
Aitkenhead, &c.,	87	84	Hamilton Road,	—	—
Baillieston, -	145	110	Holytown, &c., -	185	157
Bellshill, &c., -	382	381	Larkhall, -	868	862
Blantyre, -	251	249	Newarthill, -	112	44
Bothwell, -	100	99	Newmains, -	246	245
Busby, -	—	—	Salsburgh, -	56	29
Calderbank, -	75	1	Shotts, &c., -	717	701
Cambuslang, -	212	212	Stonehouse, -	180	177
Carmyle, &c., -	50	45	Strathaven, -	460	460
Cleland, &c., -	260	191	Uddingston, -	102	102
Dalzell, &c., -	30	22	Waterloo, &c., -	169	79
East Kilbride, -	34	34			
Gartlea, -	4	3			
Glengowan, &c.,	92	4	Total. -	4,817	4,291

### Private Streets.

**BLANTYRE.**—In connection with the negotiations for the repair or making up of *Calder Street*, referred to in last Annual Report page 440, it was decided that the question of repair should be dealt with in two portions; (1) from Craig Street to Victoria Street and (2) from Victoria Street to Dixon's Rows. As regards the first portion, all the feuars with three exceptions, were agreeable to the making up of the road, and it was decided that so soon as the necessary contributions were received, arrangements should be made for the making up of the road, with a view to its being thereafter taken over as a public highway. With regard to the second portion, all the feuars were agreeable to the proposal for the making up of the road and to contribute their respective proportions of the cost of the work, less contributions in respect of repairs of gas tracks, &c. The work has not yet been commenced.

*Cemetery Road, High Blantyre.*—Complaint was made as to the unsatisfactory condition of this private street, and a meeting was held with the various parties interested, who agreed to the proposal for the making up of the street to the highway standard. The various parties lodged their respective proportions of the estimated cost, and the necessary work in connection with the making up of the street was carried out, as arranged, by the Highways Department.



*Dixon's Rows, Blantyre.*—A complaint was made as to the insanitary condition of the private streets between these rows of miner's dwellings, known as *Park Street, Hall Street, Dixon Street, and Calder Street*. A meeting was held with representatives of the colliery company, and suggestions were made as to the requirements necessary to put the streets into a satisfactory condition. So far, only the carriageway of Hall Street has been repaired, and work is proceeding slowly at Dixon Street.

**BAILLIESTON.**—Following the reconstruction of Main Street, the discarded road metal was used to make up *Muirside Road*, referred to in last Annual Report, page 440, and the surface is meantime satisfactory.

No further progress has been made towards the repair of *Maxwell Street*, also referred to in last Annual Report, page 440, and the matter is still under consideration.

**CAMBUSLANG.**—Complaints were received from feuars in *Grenville Drive* as to the unsatisfactory condition of the roadway, and suggestions were made that the road should be reconditioned with a view to its being taken over by the Local Authority as a public highway. A note of the estimated cost of making up the road between Greenlees Road and West Coats Road, so as to fit it for adoption as a County highway has been forwarded to the feuars for their consideration.

*Overton Street.*—This street was found to be in an unsatisfactory state, and, after negotiations with the various owners, it was agreed to have it made up to the highway standard.

*Bothwell, Pretoria, Silverbanks, and Sommervell Streets*, referred to in last Annual Report. After further negotiations with the interested parties, the following is a note of the position at the close of the year :—

*Bothwell Street.*—The work of making up this street to the highway standard is now in hand.

*Pretoria Street.*—This street being too narrow to be taken over as a public highway it was proposed that it be repaired under the Public Health Act, and the factors for one of the properties intimated



that they were obtaining prices for the repair of the street. The necessary work, however, has not yet been commenced.

*Silverbanks Street*.—This street has now been surfaced, re-paved, and made up to the highway standard.

*Sommervell Street*.—Owing to the exceptional circumstances as regards this street, it was suggested that, without prejudice, the owners might be afforded an opportunity of submitting a modified scheme of repairs. Arrangements have now been made to put the street into a satisfactory condition.

As the result of complaints regarding the unsatisfactory condition of *Hunterfield Drive* and *North Avenue*, reports were submitted to the Committee certifying that these private streets required to be made good in terms of Section 39 of the Public Health Act. The Committee instructed the preparation of estimates of cost, &c., and decided that a sub-committee should thereafter meet with the owners concerned with a view to securing a voluntary arrangement for the repair or making up of the streets.

All the streets in *Newton Village*, referred to in last Annual Report, were excavated, re-bottomed with slag, and surfaced with the same material. This treatment, however, has not proved satisfactory as the surface has disintegrated in many places, and, after frost, certain of the streets became quite impassable. The matter is still being dealt with.

SHORTS.—No action having been taken by the feuars in *Olive Street*, *King Street*, and *Easter Road* to remedy the unsatisfactory condition of these private streets, referred to in last Annual Report, a sub-committee has been appointed to inspect the streets and thereafter meet with the feuars and other parties interested with a view to securing a satisfactory arrangement for the repair or making up of same.

As the result of a complaint by the Education Authority that the unsatisfactory state of the access roads leading to Calderhead Primary School was adversely affecting the school attendance, an inspection was made of the private street known as *Kirk Road* running in a northerly direction to Benhar Road, with a branch along the east side of Calderhead School to Gilburn Place, and a report was after-

wards submitted to the Committee certifying that the roads should be dealt with under Section 39 of the Public Health Act. A sub-committee subsequently met with the owners and feuars to discuss remedial measures, and estimates were submitted to the meeting showing the relative costs of (1) repairing to meet the provisions of Section 39 of the Public Health Act, and (2) the making up of the roads to highway standard, together with the amount payable by the respective feuars, allocated according to frontage. An interchange of views thereafter took place, in the course of which the feuars represented that they would have difficulty in meeting the cost involved, and urged that the County Council, who were owners of the school should make a contribution towards the scheme over and above the sum payable as frontagers under the allocation above referred to. As no agreement could be come to at this stage between the feuars and the sub-committee, it was arranged that the feuars should discuss the whole matter amongst themselves, and thereafter report their decision.

UDDINGSTON.—*Croftbank Street*, referred to in last Annual Report, was re-surfaced during the year with discarded metal from a highway, and is now in satisfactory condition.

Regarding the unsatisfactory condition of the roadways at *Tannochside, &c.*, referred to in last Annual Report, a sub-committee inspected the roads at *Bothwellpark Rows*. It was noted that the condition of same was due in some measure to the operations in connection with the erection of sanitary conveniences, and the question of putting the roads into a satisfactory state of repair was deferred till the completion of the alterations. The latter work was duly completed, and, at a subsequent inspection, it was found that repairs to the streets had been satisfactorily carried out.

As regards the insanitary condition of the roadways at *Muirpark Rows, Donaldson Place and Cuthbert Street, Laidlaw Street and Hozier Street, Young's Land, and Lee's Land, Tannochside*, an inspection was made by a sub-committee when it was decided that the various proprietors should have the opportunity of repairing the streets at their own hands. At a subsequent inspection it was observed that the work of repairing the roadways, with the exception of those at Lee's Land, had been done in a satisfactory manner.

### Nuisances.

During the year 85,728 inspections were made for the detection of nuisances, and the number of nuisances recorded was 2,105, chiefly choked drains, sinks, and water-closets. A good number of such chokages were caused through carelessness on the part of occupiers of houses, and warnings were given with satisfactory results.

Intimations under Section 19 of the Public Health Act, 1897, were issued to authors of nuisances in 1,514 cases, and in many instances the cause of complaint was immediately removed. Where the intimations had no attention, Statutory Notices under Section 20 of the Act were served, and these numbered 264. In no case, however, was it found necessary to take legal proceedings.

*Unfenced Mine Shafts.*—Intimations were received in the course of the year from H.M. Inspector of Mines of the abandonment of eighteen mines, and calling the attention of the Local Authority to the provision of Section 26 of the Coal Mines Act, 1911, requiring every shaft and outlet to be kept surrounded by a structure of a permanent character sufficient to prevent accidents, and making failure to comply with that requirement a nuisance within the meaning of Section 16 of the Public Health (Scotland) Act, 1897. The mine shafts were situated as follows:—East Parkhead, Bellshill; Newhouse Nos. 2 and 3, Holytown; Raploch No. 2, Larkhall; Burnfoot, Larkhall; Ardenrigg No. 5, Airdrie; Drumshangie Nos. 3 and 4, Airdrie; Bankhead No. 2, Clarkston; Avonside No. 2, Longriggend; Gartliston No. 2, Glenboig; Lochrigg No. 2, Whiterigg; Mossview, Dalmacouther; Hillhead, Longriggend; Longacre, Newhouse; Mossband No. 2, South Lindridge; Bellside, Cleland; and Bellside No. 2, Cleland. The matter was taken up with the various owners who complied with the requirements of the Statute.

*Burning Bing.*—The nuisance conditions caused by the emission of smoke and fumes from the mineral refuse bing adjoining Broomhouse Housing Scheme, referred to on page 443 of last Annual Report, were abated during the year. The Company abandoned the working of the coal seam producing the highly combustible waste, since when no further complaints have been received.

*Asphalt Plant, Baillieston.*—A firm of asphalt manufacturers put down a mixing plant at Swinton sand-pit in connection with their

contract for the surfacing of a stretch of the new Glasgow-Edinburgh Highway at Baillieston. The plant was of a modern type, but the site chosen was most unsuitable, there being houses situated a short distance away on every side. Complaints were received regarding the emission of smoke and fumes from the plant, and the matter was taken up with the owners who made certain improvements to the plant which reduced the emissions. It is understood that, on the completion of the contract, the plant will be dismantled.

*Smoke Nuisance at Carmyle.*—Complaint was made regarding the alleged excessive emission of smoke from the works of the Clyde Valley Electrical Power Company at Cambuslang. Numerous observations were kept on the works during the course of the year but at no time did the conditions noted warrant action being taken by this Department.

*Smoke Nuisance at Strathaven.*—Complaint was received as to smoke from a washhouse chimney at an hotel entering dwellings in Lethame Road. The matter was taken up with the owner of the hotel with the result that the chimney has been heightened, and no further complaint has been received.

*Calder Bridge, Bellshill.*—A complaint was received as to an alleged nuisance caused by a deposit of silt on low ground near the confluence of the Carsyke Burn and the River Calder. While very unsightly, at the time of inspection there was no odour and no nuisance conditions found to exist.

*Calder Road Housing Scheme, Mossend.*—Due to the overflowing of an adjoining ditch, a complaint was received as to flooding of garden ground at the rear of certain dwellings in Milnwood Drive. A sub-committee inspected the *locus* and certain recommendations were made and carried out. A further complaint has since been received which is having attention.

*Refuse Coup at Bothwellpark.*—Representations were made to the L. & N.E. Railway Company as to offensive odours emitted from a refuse coup near Bothwellpark Colliery which received refuse from the permanent way between Glasgow and Bathgate. The use of the ground as a coup was discontinued.

*Garden Refuse at Viewpark.*—Complaint was made by a local ratepayers' association as to an accumulation of garden refuse on ground south of Viewpark Housing Scheme. While no nuisance conditions were found, the Colliery Company (on whose ground the refuse was deposited) was requested to erect a warning notice board. This was done and the practice of dumping garden refuse ceased.

*Holm Quarry, Uddingston.*—Residenters in the vicinity complained as to the emission of foul odours from Holm Quarry. This quarry has long since been worked out and now contains a large quantity of water. Investigation showed that a public sewer had been fractured and its contents were being discharged into the quarry. The breakage was made good, chlorination of the water carried out, and within a short time all cause for complaint was removed.

*Corporation Coups.*—The Glasgow Corporation refuse coups near Penwinnie Farm and Maryburgh are still used, although to a lesser extent since the erection of the Corporation's new refuse destructor at Govan. Inspections were made during the year but no nuisance conditions were found.

*Airdrie Burgh Coup.*—This coup, situated on the moss at Carlisle Road, Airdrie, was found during the year to be kept in satisfactory condition. A man is constantly employed for the purpose of gathering paper and top-dressing the coup with ashes.

*Slaughterhouse Offal.*—A complaint was received as to foul smells from a manure heap at Dovesdale Farm, Dalserf. This was due to the storage of slaughterhouse offal on a field, and, on the owner being acquainted with the complaint, he had the necessary precautions taken and the nuisance abated.

*Myres Burn, Uddingston.*—Complaints were received from owners in Douglas Gardens, Uddingston, as to the unsatisfactory condition of the Myers Burn at Uddingston, and of the large quantity of residual liquid from the Gas Works flowing into the burn, and calling upon the District Committee to have the conditions remedied there by covering in the burn or ceasing to put into it the liquid from the Gas Works. An inspection was made of the *locus* when it was found that there was no cause for action being taken under the Public Health Act.



*Cement Dust Nuisance, Newmains.*—Investigations were made into a complaint by the Town Council of Motherwell as to cement dust atmospheric pollution prevailing at intervals in the upper part of the town at Kirk Road, and Cambusnethan, which was suggested to be coming from the works of the Coltness Iron Company, Ltd., situated within the Middle Ward Area, and about three-quarters of a mile from the nearest point of the Burgh.

On the day of inspection, little or no trace of cement dust was seen on the roofs or standards in Kirk Road, Cambusnethan Street, and Anderson Street, all within the Burgh area. The month of May was exceptionally dry and the prevailing wind easterly, so that the streets mentioned would, therefore, be in line of any dust that left the works.

A visit was made to the cement plant in question and the process of manufacture pointed out by the works manager who explained that everything practicable is done to eliminate dust leaving the works.

No further complaints have been received.

*Lack of Washing Facilities, Cambuslang.*—A complaint received by the Department of Health for Scotland as to lack of facilities for washing clothes at 29 Colebrooke Street, Cambuslang, was dealt with. A report was submitted to the Committee stating that on 15th August, 1928, the washhouse at this property was found to be in a dilapidated condition, and intimation was sent to the factors with a view to getting it put into a proper state of repair. The factors, however, removed the washhouse altogether and since then there have been no washhouse facilities at the property, and the tenants have either had to wash in their dwellings or to be accommodated by friends. The property comprises twelve two-apartment dwellings, with a total of seventy-nine inmates. It was further stated that a number of tenement properties in the Middle Ward District, and more particularly in Cambuslang, are presently without washhouse accommodation, the washhouses having fallen into disrepair and been removed by the owners or factors, following on a decision in the Sheriff Court against the Local Authority, in connection with a dilapidated washhouse at 5 and 7 Morriston Street, Cambuslang, the Sheriff in that case finding that, while the want of washhouse accommodation is a source of inconvenience to the tenants, such



deficiency does not necessarily constitute a nuisance, or produce a state of matters injurious or dangerous to health. It was suggested to the Committee that, in view of the foregoing decision, fresh legislation is necessary to deal with such cases. The Committee agreed and informed the Department of Health that amending legislation was clearly called for to permit of facilities being provided for and at all such properties.

*Glenmavis*.—Representations having been made to the Department of Health for Scotland as to the condition of the dry-closets and ash-pits in Glenmavis, and referring also to a dairy with a dirty ashpit on either side of it, an inspection of the village was made, and a report in the following terms submitted for the consideration of the Committee.

“The village comprises about 180 dwellings. Of these, 56 are situated in the District Committee’s Housing Scheme, and are supplied with all modern sanitary conveniences. The remaining 124 dwellings are otherwise owned.

“Of the above 124 dwellings only 31 have water-closet accommodation, the others having privy-middens, mostly used in common. Some of these privy-middens, at the time of visit, were requiring to be emptied, and some of the structures are in need of repair. These are having the attention of the Department. The contents of the middens are removed periodically by farmers under yearly contract with the various owners—a most unsatisfactory arrangement, as the time of removal depends upon the pressure of other farm work, no regular times being specified. If a regular system of cleansing were introduced, the sanitary aspect of the village, even with the present structures, would be much improved.

“Only some 69 of the 124 dwellings have inside sinks and water supply, the others being dependent upon outside wells, and disposing of slops in outside sinks, and surface channels.

“The sewer from the District Committee’s Housing Scheme passes down the Main Street, and, if facilities for connections to this sewer could be arranged, water-closet accommodation could be immediately introduced to about two-thirds of the village.

“Part of a property situated in Main Street, is occupied as a dairy. There is a dilapidated privy-midden south of the dairy scullery, and about 15 yards distant therefrom, while on the north side there is another dilapidated privy-midden distant about 25 yards from the milkhouse. These receptacles were both full and requiring to be emptied. They are receiving the attention of the Department.”

The question of providing facilities for connections to the Housing Scheme sewer in Main Street, as above suggested, was considered by the Housing Committee, who were advised by the District Engineer that if any additional sewage was discharged into the housing sewer, the existing purification works would require to be enlarged. It was agreed to remit the whole question of the provision of drainage facilities for Glenmavis back to the Special Districts Committee.

*Roughrigg, Longriggend.*—A complaint received by the Department of Health for Scotland as to alleged nuisance conditions at Roughrigg, Longriggend, was enquired into, and an inspection made of the *locus*. It was found that the complaint referred to a discharge from a surface channel of Office Row, supplemented by waste water from a Kennedy well, in which there was some silt or sludge: the discharge flowing down the side of the highway alongside the complainer's feu and passing into an adjoining field. In an interview with the complainer it was ascertained that the discharge formerly passed through a pipe into a ditch on the east side of his garden, but this pipe became choked and the liquid had thereafter been diverted to its present course. Asked whether he would have any objection to the pipe being cleared and the liquid again sent down the ditch through his garden, the complainer at once intimated his willingness to allow this to be done. On opening up the ditch through the complainers' garden however, it was found that an attempt had been made by him some time before to form a drain in the bottom of the ditch with bricks, stones, corrugated-iron, boards, &c., and the ditch had thereafter been filled in and its gradient destroyed. To remedy this, it would be necessary to lay a 6-inch fire-clay pipe for a length of about 50 yards, but, having regard to the value of the various dwelling-houses in the locality it was considered inadvisable to incur such expenditure. Meantime, the channel on the public road is swept regularly, so as to obviate any nuisance conditions arising, pending the question of a Demolition or Closing Order being made in respect of the houses at Office Row.

*Parkneuk, Holytown.*—An anonymous letter was transmitted by the Department of Health with regard to alleged insanitary conditions at property at Parkneuk, Holytown. The complaint referred to two dwellings which have since been vacated as the result of a Closing Order under the Housing Act of 1925.

*Verminous Houses.*—A number of complaints was received during the year as to the prevalence of various insect pests in dwelling-houses, even in those of a somewhat superior class. The vermin were in most cases exterminated—usually with considerable expense to the property owners.

*Rats and Mice (Destruction) Act, 1919.*—During the year complaints were received as to the infestation of numerous premises by rats and mice. The occupiers were made aware of their obligations under the Act, and advice was given and virus supplied where necessary.

### **Cinemas.**

All the cinemas within the District were regularly inspected during the year, and a good standard of cleanliness continues to be maintained. Defects of a minor character were found in certain premises, but these were immediately remedied on being brought to the notice of the managers concerned.

At Cambuslang two new cinemas were opened, and at Strathaven the Public Hall ceased to be used as a cinema after the construction of a new picture house in Barn Street. The cinema in Stonehouse was burned down during the year, and has not been re-erected. Owing to the dangerous condition of the building, a notice was served on the owner. The premises are at present being converted into a garage.

### **Public Conveyances.**

During the period under review, 2,609 inspections of public conveyances were made, and it was found that the general cleanliness of the vehicles was good. Complaints are still being received, however, as to defective ventilation in buses, and in all cases the attention of the owners has been directed to the matter.

### **Workshops.**

The number of workshops on the register at the beginning of the year was 284. Since then 5 have been added and 19 removed, leaving 270 at the close of the year. In the tailoring and dressmaking trades there is a steady decline in the number of such workshops and employees, trade depression and the demand for ready-made garments being mainly responsible.

During the year a notice was received from H.M. Inspector of Factories of persons beginning to occupy workshops. The premises were duly inspected, measured, and the occupiers supplied with cards showing the capacity of each room and the number of employees permissible.

The inspections made numbered 481, of which 120 were factory bakehouses. One notice was received from the Inspector of Factories regarding a dirty bakehouse floor, and the matter was taken up and dealt with. We also dealt with other six dirty bakehouses and a leaky bakehouse roof found in the course of our routine inspections.

Two lists, containing three outworkers, under Section 107 of the Factory and Workshop Act, were received from the City of Glasgow Authority. Inspections were made of all the premises, and these were found in a satisfactory condition.

The following table gives the handicrafts carried on in the various workshops :—

#### HANDICRAFTS.

Dressmaker, - -	11	Watchmaker, - -	5
Tailor, - - -	49	Plumber, - - -	12
Milliner, - - -	4	Cartwright, - -	1
Baker, - - -	93	Motor Repairer, -	3
Shoemaker, - -	38	Hosier, - - -	5
Saddler, - - -	5	Coachbuilder, - -	3
Blacksmith, - -	18	Coachpainter, - -	1
Joiner, - - -	15	French Polisher, -	1
Cabinetmaker, -	3	Confectioner, - -	2
Moss Litter Work, -	1		
		Total, - - -	270

*Fire Escape.*—In connection with the application by the Bellshill Hosiery Co., Ltd., referred to in last Annual Report, for a certificate in terms of Section 14 (1) of the Factory and Workshop Act, 1901, as to provision in their Hosiery Factory in Bellshill of means of escape in case of fire, satisfactory arrangements were made by the Company, and the necessary certificate was granted by the Committee.

#### Public Schools.

The various public schools within the District were visited during the year, and several matters requiring attention were brought to the notice of those responsible. The general cleanliness of the schools and lavatories was found to be satisfactory.

*Uddingston.*—Notwithstanding the provision of additional temporary class rooms at St. John's R.C. School, referred to in previous Annual Reports, the conditions at this school are still far from satisfactory.

*New Stevenston.*—The new pedestal water-closets which have been completed at New Stevenston Public School, referred to in last Annual Report, are proving satisfactory.

*Cambuslang.*—A new school is to be erected to replace the existing R.C. School at Newton which is in a very unsatisfactory condition.

St. Bride's School is under consideration for enlargement and improvement, and for the accommodation of the Infant Department presently in the Old School at Kirkhill, which is also unsuitable for present requirements.

*Meikle Drumgray.*—The school at Meikle Drumgray, at which dry closets are still in use, will soon be closed and the pupils transferred to the new school nearing completion at Whiterigg.

*Baillieston.*—The new school at Rhindsmuir, referred to in last Annual Report, was opened during the year, and the old school at West Maryston closed.

### **Tents and Vans.**

In the course of the year 339 inspections of tents and vans were made throughout the District, and, with several exceptions, all the premises were found in a satisfactory condition. A number of cases were dealt with under the Local Authority's By-laws, but it was not found necessary to take proceedings, as the occupiers of the caravans concerned cleared out of the district after service of an intimation.

The showgrounds at *Bellshill* and *Uddingston*, which are frequented principally by the itinerant type of caravan dweller, are the only large camping grounds in these districts, and water-closets are installed on the grounds and receptacles for the collection of refuse provided. Difficulty is sometimes experienced in getting van-dwellers to deposit their refuse in the receptacles provided, but, apart from this, there was no cause for complaint.



*Tollcross*.—Complaints were again received from owners of properties, adjoining a site at the junction of Easterhill Street and Causewayside Street on which several caravans stood, regarding the misuse of domestic and sanitary conveniences by the van-dwellers. The matter was taken up with the occupiers of the vans and, as a result of intimations under the By-laws, they removed from the district.

*Barrachnie*.—The occupier of a van situated on vacant ground at Barrachnie was asked to comply with the By-laws in respect of a water supply, drainage, &c., but he decided to sell the van and find accommodation elsewhere.

*Riggend*.—At Drumshangie Moss, Riggend, four vans were found to be occupied by persons working in the district who, it was stated, were unable to find proper housing accommodation in the village. The vans were overcrowded and intimations were served on the occupiers who subsequently removed elsewhere.

*General*.—As the number of permanent van-dwellers is increasing within the County area, and the owners of property in close proximity to their camping grounds are pestered to give water facilities and the use of water-closets, &c., to the campers, might I again suggest that the Local Authority press for legislation to enable them to deal with the real offenders, namely, the owner or person letting the ground without providing proper conveniences for the use of the van-dwellers.

*Summer Camp*.—The summer camp at Lickprivick Farm, East Kilbride, was again run on very satisfactory lines and no cause for complaint could be found. This year the population of the camp reached 200, the number of tents allotted being 28, along with three wooden huts and two old railway carriages.

### Interments.

The prevailing industrial depression is again responsible for the comparatively large number of bodies requiring to be interred at the expense of the Local Authority. In all, 25 bodies, mostly of infants, were buried, an increase of one over the previous year, the deaths



being due to various causes. Twenty-one of the bodies were claimed and four unclaimed, but no "sufficient person" undertook the burial. The total cost to the Local Authority amounted to £49 2s. 6d.

In every case where application is made to the Local Authority for the interment of a dead body, by relatives or others who allege that they are unable to bear the expense of the burial on account of poverty, it has been the practice of the Department to make careful inquiry into all the circumstances, particularly to ascertain whether the deceased person was insured in any benefit society, and, as a result, sums were afterwards recovered, amounting in the aggregate to £7 16s. 11d.

### **Common Lodging-Houses.**

There are only two common lodging-houses in the Middle Ward Area, the keepers of which applied for, and were granted by the Committee, renewal of registration. The premises were regularly inspected and found in a satisfactory condition.

### **Dairies.**

During the year, 1,720 visits of inspection were made by the Sanitary Staff to dairy premises, and in several instances structural defects were reported and dealt with under the Local Authority's By-laws under the Milk and Dairies (Scotland) Act, 1914.

A number of cowkeepers were dealt with for failing to keep clean byres and dairy animals, but in no case was it found necessary to take proceedings. It may appear strange in these days of gross unemployment that in nearly every instance the "shortage of labour" was advanced by the dairymen concerned as an excuse for the dirty condition of premises and animals.

As the result of complaints regarding dirty milk supplies, a number of special visits were made at milking time to dairy farms, and, where methods of milking were found to be unsatisfactory, instructions were given to the dairymen, with good results.

*New Byres, &c.*—Further progress was made during the year in the provision of new byres and improvements to dairy premises

generally, and the following plans were submitted and approved of by the Local Authority during the year :—

Boag, Stonehouse, ... ..	Byre, Alterations.
Bellsfield, High Blantyre, ... ..	New Byre.
Yett, Newarthill, ... ..	New Byre.
Hill, Tannochside, ... ..	New Byre.
Pather, Wishaw, ... ..	New Byre, &c.
Auldton, Ashgill, ... ..	New Byre.
Little Udston, Hamilton, ... ..	Byre Extension.
Brackenhirst, Airdrie, ... ..	New Byres, &c.
Ryding Cottage, Glenmavis, ... ..	New Milkhouse and Boiler- house
Mossywood, Airdrie, ... ..	New Byre, &c.
Easterton, Caldercruix, ... ..	New Byre, &c.
Kirkwood, Coatbridge, ... ..	New Byre, &c.
Mains, Carmyle, ... ..	Byre Alterations, &c.
Wester Hassockrigg, Shotts, ... ..	New Byre and Milkhouse.

IMPROVEMENTS.—The following is a note of the improvements carried out at dairy premises throughout the District :—

*AVONDALE.—High Hook Farm.*—Drainage facilities have been provided for the byre and boilerhouse.

*Udstonhead Farm.*—A steam boiler and sterilising chest were installed and the existing boiler removed.

*South Halls Farm.*—A glass opening ridge ventilator was provided, and the inside byre walls cement-plastered.

*Walkerdyke Farm.*—The byre roof has been wood-lined and varnished, and an opening glass ridge ventilator provided.

*Whitelaw Farm.*—In No. 2 byre an opening glass ridge ventilator has been provided.

*Townfoot of Priestgill Farm.*—At this farm the following byre improvements have been completed :—a fixed open ridge with 2-inch slot; improved lighting and ventilation; internal surfaces of walls cement-plastered; new cement concrete settles, channels, and walk; and fixed fireclay troughs provided.

*High Unthank Farm.*—An opening glass ridge ventilator has been provided on the byre at this farm.

*East Brackenridge Farm.*—On the byre at this steading three opening roof lights have been fitted.

*Hazliebank Farm.*—The inlet and outlet ventilation, and lighting of the two byres at this farm have now been brought up to the requirements of the By-laws.

*Low Drumclog Farm.*—A new cement walk and channels have been laid, and the internal surfaces of the byre walls cement-plastered. Improved inlet ventilation has been arranged for.

EAST KILBRIDE.—*Belleraig Farm.*—At this farm the dairy byre has been brought into conformity with the By-laws, and a new milk-house also provided.

When visited within a short time after the improvements had been carried out, it was found that the tenant had deliberately closed up the 2-inch ridge opening and stuffed up all the inlet ventilators. He has been asked to have the obstructions removed.

*Lawmuir Farm.*—A new roof has been provided for the byre at this steading with an opening glass ridge, and the byre floor repaired.

*Mid-Crosshill Farm.*—An opening ridge-board ventilator was provided in byre, with fixed glass on each side of roof.

*Backraw Farm.*—The byre at this farm has been completely overhauled and brought into conformity with the By-laws.

*Crosshouse Farm.*—At this farm an opening glass ridge ventilator has been provided on the byre, and a new cement walk has also been laid.

*Crutherland Farm.*—An opening ridge board ventilator with fixed glass on each side of the byre roof has been provided.

GLASSFORD.—*Heads Farm.*—Complaint was made regarding the insanitary condition of the dairy premises at this farm, and a meeting with the owner's representatives held at the farm, but nothing has yet been done to remedy the defects.

*Bracehead Farm.*—The byre at this farm was overhauled at the request of the Department and brought into conformity with the By-laws.

*East Drumloch Farm.*—At the request of the Department the following improvements were carried out at this farm:—Internal walls of byre cement plastered; new cement walk laid; settles and channels repaired; inlet ventilators provided; fixed ridge ventilator with glass fitted; wallheads beam-filled; and new drain traps provided outside byre.

*The Ferme.*—Arrangements were made with the new owner to bring the dairy premises up to the requirements of the By-laws, and the matter was in hand at the close of the year.

STONEHOUSE.—*Kittymuirhill Farm.*—A meeting was held at this farm with tradesmen to discuss the work required to be carried out to bring the premises into conformity with the By-laws, but, so far, no proposals have been submitted.

BLANTYRE.—*Priestfield Farm.*—The improvements at this farm comprising adequate lighting and ventilation, stall divisions, floors, &c., and repairs to milkhouse are almost completed.

*The Edge Farm.*—The work of improving the lighting, ventilation, stall divisions, and floors of the byre at this steading is also nearing completion.

*Bellsfield Farm.*—Besides the erection of a new byre stalled for 30 dairy animals at this farm, improvements on the old byre comprising adequate lighting and ventilation, and a new dungstead have been carried out.

*Broomhouse Farm.*—The owner-occupier of this dairy farm was not prepared to carry out the necessary improvements to bring the premises into conformity with the By-laws and the Local Authority decided to withdraw the certificate of registration presently held by him. Permission was granted him, however, until 1st May, 1931, to enable him to dispose of his dairy stock.

BOTHWELL.—*Eastmuir Dairy, Uddingston.*—Improvements on the byre, boilerhouse, and dungstead were carried out at these dairy premises, and a bathroom with water-closet, bath, and washhand basin provided in the dwelling.

*Cleland Townhead Farm, Newarthill.*—The work of carrying out general repairs on the two byres at this farm has not yet been completed.

*South Howden Farm, Holytown.*—Improvements comprising inlet ventilation for the byre at this farm, a new floor and passage, and wider grips have been carried out. Zinc ventilating ducts on the masked side of the byre are still to be fitted.

*CAMBUSLANG.—Fisheseoates Farm.*—Improved lighting and ventilation, and repairs of the byre walls have been executed at this farm.

*Greenleeshill Farm.*—The work of providing adequate lighting and ventilation, the repairing of byre walls and floors, and the improving of the milkhouse, is now completed.

*Turnlaw Farm.*—Improvements comprising adequate lighting and ventilation, repairs to walls and floor of byre, and repairs to milkhouse have been completed.

*Malcolmwood Farm.*—Adequate lighting and ventilation of the byre at this farm, and repairs to the milkhouse and boilerhouse have been carried out satisfactorily.

*Morrison Farm.*—The repairs completed on the byre at this steading comprised adequate inlet ventilation, a new floor, and general repair of the walls.

*CAMBUSNETHAN.—Sharnothshields Farm, Newmains.*—Extensive repairs on the byre at this farm were satisfactorily carried out.

*Garrison Farm, Overtown.*—A new glazed ridge ventilator was introduced in the byre at this steading, with good results.

*HAMILTON.—Mafflat Farm.*—The following improvements were executed at this farm to meet the requirements of the dairy by-laws; floors, channels and walk of byre laid with cement; new cement concrete divisions provided; internal surface of walls cement-plastered; adequate inlet ventilation openings and two opening ridge ventilators provided; lighting increased to one-twentieth of floor area; and drainage improved.

*Darngaber Farm.*—After considerable delay, repairs and improvements were carried out on the dairy byre at this steading as follows; floors repaired; internal surface of walls cement rendered; open ridge ventilator provided; lighting increased to one-twentieth of floor area; byre channels made to discharge over trap outside; walls of dungstead built up; and door in inside gable wall built up.

NEW MONKLAND—*Arbuckle Farm.*—Repairs and improvements to meet the requirements of the By-laws were completed on the byre at this farm, as follows:—Internal surface of walls cement rendered; old stalling at north-west corner removed and floor made good; improved lighting and ventilation provided; a new dungstead built; and repairs to milk-house and boiler-house.

*Midton Farm.*—Owing to the unsatisfactory condition of these dairy premises and to the fact that the necessary repairs and improvements were not carried out, registration was refused by the Local Authority in July, 1929. The occupier then asked for permission to carry on until 28th November of that year, as he was negotiating for another farm in the district, which permission was granted by the Local Authority. Subsequently the occupier intimated that he had been unsuccessful in securing the farm anticipated, and he would therefore require to proceed to carry out the improvements necessary at Midton Farm. Nothing was done, however, and intimation was sent the occupier that, unless the alterations were commenced within one week and completed with all despatch, to the satisfaction of the Department, a prosecution would be instituted against him, should he continue to use his premises for dairy purposes. No attention was paid to the intimation, and the Committee authorised proceedings to be taken. Almost simultaneously, an appeal was lodged by the occupier against the Local Authority's decision refusing him registration, and on the first case calling in Court the accused pled guilty and was admonished. The appeal at the instance of the dairyman was dismissed, with expenses to the Local Authority.

The repairs and improvements were thereafter proceeded with and completed, as follows:—Improved lighting and ventilation; new manure channels; internal surface of walls cement plastered four feet up; hayloft above byre entirely removed; improved drainage; new dairy scullery; and general repairs to milkhous and dungstead. Registration has now been granted.



*North Myvot Farm.* — At this dairy farm the byre has been improved by the provision of proper lighting and ventilation, new floors, and proper drainage. A new dairy scullery, dungstead, and sewage tank have also been provided, and the question of an improved water supply is still under consideration.

*Hillend Farm.*—The byre at this farm was improved by the addition of more lighting and ventilation arrangements and new floors. The drainage was also overhauled.

*East Gartmillan Farm.* — The improvements at this dairy farm have now been completed, and comprise the provision of adequate lighting and ventilation and the erection of a new dairy scullery.

*Cullochrigg Farm.*—A new dairy scullery has been constructed at this farm.

OLD MONKLAND.—*East Shawhead Farm.*—During an inspection of this dairy farm it was found that twelve dairy animals were accommodated in an auxiliary byre, which was unregistered for the purpose. The occupier is being pressed either to provide adequate byre accommodation or reduce the number of his dairy animals.

SHOTTS. — *West Tarbrax Farm.* — Repairs and improvements, comprising adequate lighting and ventilation, making good floors and manure channels, repairs to walls, &c., have now been executed.

*Springhill Farm.*—At the request of the Department, repairs and improvements on the byre, milkhouse, boilerhouse, and dungstead were carried out during the year.

*South Stane Farm.*—As the result of a complaint the byre, &c., at this farm were inspected and several defects noted. These comprised inadequate lighting and ventilation, defective floors, unsatisfactory milkhouse, &c. The matter was taken up with the owners, who have now completed the necessary repair work and improvements.

DRINKING BOWLS, &C.—A further increase has been observed during the year in the number of dairy premises at which drinking bowls have been introduced to the byres, with satisfactory results. Another noticeable feature is the continued improvement in farm water supplies by the introduction of private gravitation supplies, or power pumps and storage tanks.

REGISTRATION.—During the year 48 applications for registration were received, and, including the applications continued from the previous year, 56 certificates of registration were granted by the Local Authority. The number of businesses discontinued was 28, leaving a total of 938 registered dairies—741 producers and 197 retailers only—at the close of the year. Included in the foregoing total are 53 retailers by vans from outwith the area. The approximate number of dairy animals found in registered byres was 14,800.

The following table shows the distribution of producers of milk, retail milkshops, and retailers from vans within each parish of the area :—

Parish.	Producers.	Milk Shops.	Vans.	Total.
Avondale, ... ..	142	8	—	150
East Kilbride, ... ..	103	3	2	108
Glasford, ... ..	51	5	—	56
Stonehouse, ... ..	31	1	1	33
Blantyre, ... ..	21	17	5	43
Bothwell, ... ..	73	35	9	117
Cambuslang, ... ..	22	24	5	51
Cambusnethan, ... ..	50	9	2	61
Dalserf, ... ..	24	9	—	33
Dalziel, ... ..	6	—	—	6
Hamilton, ... ..	46	1	2	49
New Monkland, ... ..	74	6	11	91
Old Monkland, ... ..	32	14	18	64
Shotts, ... ..	66	9	1	76
Totals, ... ..	741	141	56	938

EXEMPTED PREMISES. — The general conditions and cleanliness of the few exempted premises within the Middle Ward Area were found to be good.

PROSECUTION. — As referred to on a preceding page, action was taken against the occupier of Midton Farm, Whiterigg, in respect of his carrying on the trade of a dairyman without having been granted a certificate of registration in respect of his premises, contrary to the Milk and Dairies Act, and when the case was called in Court the accused pled guilty and was admonished. An appeal by the dairyman against the refusal of registration was dismissed, £3 3s. of expenses being granted to the Local Authority.

MILK AND DAIRIES (SCOTLAND) ORDER, 1925. — Several dairymen were dealt with during the year for failing to carry out the requirements of Articles 5 to 16 of the Milk and Dairies Order, and in every instance the warning given had the desired effect.

CLEANLINESS OF MILK SUPPLIES.—The informal sampling of milk supplies within the Middle Ward Area was continued during the year, and it was found from the results of examination by the County Bacteriologist that a decided improvement had taken place in the condition of milk produced in this area. A total of 310 samples was obtained by the Sanitary Staff during early morning and afternoon milking at dairy farms, also from milkshops and carts, and the examination results are given in the following table :—



As will be seen from the foregoing figures *Coliform Bacilli* were found in 159, or 51 per cent. of the total samples, against 65 per cent. last year, and *bacterial* contents of from 200,000 to over 2 million per c.c. were found in 41, or 13 per cent. of the total samples, against last year's percentage of 18. The worst of the samples examined gave a *bacterial* count of 2,736,000 per c.c. with *Coliform Bacilli* present in 1/1000 of a cubic centimetre, while the best was a sample of ordinary milk which gave a *bacterial* count of only 1,600 per c.c., and *Coliform Bacilli* absent in 1/10 c.c.

The percentage of samples with less than 30,000 *bacteria* per c.c. has increased from 41 to 44, while the percentage of samples with over 200,000 per c.c. has decreased from 18 to 13.

Of the 310 samples taken, 92 or about 30 per cent. were up to "certified milk" standard; 115 or 37 per cent. up to "grade A" standard; and the remaining 103 or about 33 per cent. were under the latter standard.

During the re-visits by the Sanitary Staff to the dairies where unsatisfactory milk samples had been obtained, it was found that the milking methods were bad, and, undoubtedly, the cause of unsatisfactory milk being produced. It cannot, therefore, be too strongly emphasised to all concerned that a high bacterial content is chiefly due to the cows not being properly cleaned before milking; failure to discard the first streams of milk from each teat; milkers neglecting to wash and dry their hands before milking each cow; and the improper cleansing of milk vessels, &c.

Altogether the results for the year show improvement and if every producer and dairyman would carry out the requirements of the Local Authority's By-laws and maintain absolute cleanliness in every detail of dairying, it is certain that a still greater improvement would fall to be recorded next year.

### Houses Let in Lodgings.

As stated in former Annual Reports, the registration of houses let in lodgings is still in abeyance owing to the scarcity of suitable housing accommodation in the District. Numerous inspections, however were made of houses where single lodgers were kept or apartments sub-let to families, and action was taken where gross overcrowding was found.

### Offensive Trades.

The number of offensive trades within the District is eleven, situated as follows:—Hareshawhead, Strathaven; Newarthill; Omoa; Chapelhall; Caldercruix; Greengairs; Longriggend; Cleland (3); and Harthill. In the course of the year regular visits of inspection were made, and, although the structural conditions are not quite satisfactory, the premises were all found in a clean condition.

Drainage improvements were executed at the Co-operative Society's Slaughterhouse, Harthill.

*Public Abattoirs.*—There are seven abattoirs in operation belonging to the Local Authority, and these are situated at Baillieston, Blantyre, Bellshill, Larkhall, Shotts, Stonehouse, and Strathaven.

*Other Offensive Businesses.*—The operations at the Knackery at Omoa, where the manufacture of manure is also engaged in, continue to be conducted in a satisfactory manner, and the gut-cleaning business at 11 Clark Street, Blantyre, was also carried on during the year without complaint.

### Unsound Food.

During the year, 1,070 inspections were made of shop premises, vans, &c., and three seizures, comprising 6 lbs. kippers; 18 stones herring; and eight 20-dozen cases oranges were made by the Sanitary Staff. Particulars as to the inspection of meat are given in the County Meat Inspector's Report.

### Food Inspection.

Numerous inspections were made of shops, hawkers' carts, &c., where foodstuffs were exposed for sale, and, with a few exceptions, the premises were found in a clean condition. The quality of the foodstuffs being retailed was generally found to be good.

Particular attention was paid to sheds and stores used by hawkers for storing food, and it was found in many instances that these vendors prefer to store fruit, &c., in their dwellings to prevent thieving on the part of outsiders. In all such cases the vendors were warned against the practice.



In several instances the sale of foodstuffs from apartments which were also used for sleeping purposes were reported, but, until there is legislation to prevent the storage and sale of foodstuffs in dwellings, it seems well-nigh useless for officials to interfere, as the occupiers are fully aware of our impotency in the matter.

### Meat Regulations.

*Storage of Meat.*—A renewal of the certificate of approval of accommodation at Caerlaverock, Foxley, Tollcross, for the storage of meat food products was granted by the Local Authority in terms of Section 12 of the Public Health (Meat) Regulations (Scotland), 1924. The premises were regularly inspected during the year, and everything was found to be satisfactory.

An application was received for a certificate of approval of premises at Alva Place, Meikle Earnock, for the purpose of storing meat. An inspection was made of the premises, which proved to be a hut measuring some 12 feet by 8 feet by 8 feet 6 inches to eaves, situated at the extremity of the back-court of a two-storey tenement property. The situation of the hut was bad, as there was a wooden stable about 2 feet 6 inches in front of same, and a privy-midden about 23 feet distant. The hut, at the time of visit, was clean and in fair condition, but quite useless for the storage of meat in warm weather. In the interests of Public Health the Local Authority refused the application.

### Pigstyes.

The inspections of pigstyes made during the year numbered 261, and three applications for sanction to erect pigstyes were received, two of which were granted by the Local Authority. The application refused was in respect of a piggery proposed to be erected on a piece of vacant ground in Bothwell, which did not conform to the By-laws as regards distance from the public highway, and unsuitable material for construction of the premises.

With a few exceptions, the pigstyes throughout the area were all found to be kept in good order, and free from nuisance conditions.

*Sidehead Road, Stonehouse.*—The tenant of a house in this populous place was found to be keeping pigs without having obtained the sanction of the Local Authority, and, on the matter being dealt with, the pigs were disposed of and the piggery abolished.

*Malone's Piggery, Carfin.*—In connection with a complaint sent to the Department of Health by occupiers of houses in New Stevenston Road and Philiphaugh, Carfin, as to the conditions arising from the keeping of pigs at Malone's Piggery, Carfin, an inspection was made of the premises, and a report submitted to the Committee. It was alleged that the piggery was infested with rats, and that the smell from the cooking of food material was offensive, but the results of investigation negatived the first allegation and proved the second to be grossly exaggerated. Certain minor improvements were, however, suggested to the owner.

### **Burial Grounds.**

The various burial grounds throughout the area continue to be kept in good order.

The extension of Airbles Cemetery, Motherwell, referred to in last Annual Report, is nearing completion.

*Churchyards, &c.*—A number of interments were carried out during the year in the old churchyards at East Kilbride and Stonehouse. The conditions were satisfactory except in two cases at East Kilbride and one at Stonehouse, where sufficient depth for the burial without disturbing remains could not be obtained, and these interments were therefore made in the new cemeteries of the respective villages.

The other old churchyards and burial grounds throughout the district continue to be kept in a satisfactory condition.

JOHN MILLAR,  
*County Sanitary Inspector.*

County Public Health Department,  
Beckford Street,  
Hamilton, 16th April, 1931.

## BUILDING REGULATIONS.

The total number of plans lodged for approval amounted to 90. As in previous years, a large proportion of these had not been prepared in accordance with the By-laws, and it was only after much correspondence and meetings with the Architects that matters were adjusted. All the disconformities were reported to and dealt with by the committee. One plan was withdrawn.

The nature of the buildings, as indicated by the plans lodged, were as follows:—

NEW BUILDINGS UNDER BY-LAW No. 41.—Houses and shops, 38; workshops, 4; public buildings, 7; and other buildings, 1; total plans, 50.

ALTERATIONS IN THE MODE OF OCCUPANCY, UNDER BY-LAW No. 51.—Houses and shops, 26; workshops, 4; public buildings, 9; and other buildings, 1; total plans, 40.

1,979 inspections were made during the course of construction of the buildings. 3 contraventions of the Building By-laws were discovered, and these were reported to and dealt with by the committee.

903 applications of the smoke test were made to the drains and plumber work in connection with the sanitary fittings of new properties. In several cases the work was found defective and re-tests had to be made, but on the whole the work done by the contractors was of a very good standard.

In addition to the plans lodged under the Building By-laws, 83 plans were received, and approval granted for various erections of a minor character.

HOUSING, &c., ACT, 1923.—9 applications, comprising 10 houses, for subsidy under this Act were dealt with, and Certificate "A" issued to the owners. A number of the plans and specifications required adjustment, but all were made to conform to the Regulations issued by the Department of Health for Scotland.

7 houses were completed, and Certificate "B" for payment of subsidy (£52 per house) granted to each owner in respect of same, viz. :—

Double cottage at Bowling Green Road, Strathaven.

Cottage at Nether Braco, Caldercruix.

Double Cottage at Markethill, East Kilbride.

Cottage at Threestanes Road, Strathaven.

Cottage at Newlands Road, East Kilbride.

HOUSING (FINANCIAL PROVISIONS) ACT, 1924.—Local Authority's Schemes—36 houses were inspected and reported on to the County Clerk as being completed and eligible for grant, their construction complying with the conditions prescribed by the Department of Health for Scotland under the above Act.

HOUSING (FINANCIAL PROVISIONS) ACT, 1924.—Private Enterprise—1 application was received during the year from the Coltness Iron Company, Limited, Newmains, for grant on 2 houses to be erected at Hassockrigg. The application was approved and Certificate "A" granted. Building operations commenced immediately, but the houses were not completed at the end of the year.

HOUSING (SCOTLAND) ACT, 1925.—9 applications (embodying 70 houses of two apartments), under Section 111 of the above Act, were received for the erection or conversion of existing dwellings into two-apartment houses. The plans for these were, in all cases, reported to the Public Health and Housing Committees.

HOUSING (RURAL WORKERS) ACT, 1926.—25 applications were received during the year for assistance in aid of reconstruction and improvement of 48 dwellings for the accommodation of agricultural workers and other persons whose economic condition is substantially the same as such workers, and a grant was sanctioned by the committee in each case.

Building operations in connection with 12 applications (17 houses) were completed during the year and Certificate "B" for payment of grant issued to the respective owners. The properties on which improvements were completed are as follows:—

*Greenlees Farm, Cambuslang.*—General repairs to the houses were made and sculleries, w.c.'s, and larders added to 3 two-apartment houses, at a cost of £547.

*Dykeneuk Farm, Avondale.*—A new wash-house was erected and general repairs made to 1 two-apartment house, at a cost of £147 5s. 3d.

*Loanend Cottage, Flemington Farm, Hallside.*—A scullery, with w.c. and larder accommodation, was provided, and general improvements to 1 two-apartment house, at a cost of £225 15s.

*Netherhouse Farm, Bargeddie.*—Upper floor bedroom was converted into bathroom, with w.c., and general repairs to five-apartment house, at a cost of £125 19s. 7½d.

*Heathery Knowe Farm, Bargeddie.*—The existing back kitchen was re-arranged to form scullery, bathroom, larder, and coal cellar in existing two-apartment house, at a cost of £155 7s. 7d.

*Heathery Knowe Farm, Bargeddie.*—Part of upper-floor bedroom was converted into bathroom and present living-room into scullery, larder, and coals in five-apartment house, at a cost of £205 17s. 7d.

*Heathery Knowe Lodge, Bargeddie.*—The scullery was improved, and bathroom, with w.c. accommodation, and coal cellar formed in two-apartment house, at a cost of £225.

*Mid Lettrick Farm, Cambuslang.*—General improvements were made, and a w.c., larder, and coals added to five-apartment house, at a cost of £152.

*Greenlees Toll, Cambuslang.*—Three houses were converted into 2 two-apartment houses, and each provided with scullery and w.c., at a cost of £333.

*Whitlaburn, Cambuslang.*—The boxroom was converted into bathroom, with hot-water connection to same, and general repairs made to four-apartment house, at a cost of £163.

*West Hallside Farm, Hallside.*—The present sculleries were taken down and re-built, the lighting of the various apartments increased by introduction of new windows, and general repairs to 2 two-apartment houses, at a cost of £340.

*Springhill Farm, Easterhouse.*—Sculleries, bathrooms, and larders were added to 2 two-apartment houses, at a cost of £325.

TABLE I.—NUMBER OF SETS OF PLANS LODGED DURING THE YEAR 1930.  
IN ACCORDANCE WITH BY-LAWS 41 AND 51, CLASSIFIED ACCORDING  
TO THE NATURE OF THE BUILDINGS SET FORTH IN PLANS.

PARISH.	Plans lodged for New Buildings under By-Law 41.				Plans lodged for alterations in mode of occupancy of Existing Buildings under By-Law 51.			
	Houses and Shops.	Work- shops.	Public Buildings. e	Others. †	Houses and Shops. ‡	Work- shops.	Public Build- ings. §	Others. 
Avondale, - -	5	...	...	1	5	...	...	...
East Kilbride, -	5	1	1	...	2	1	...	...
Glasford, - -	...	...	...	...	...	...	...	...
Stonehouse, - -	2	...	...	...	...	...	1	...
Blantyre, - -	...	...	...	...	...	...	2	...
Bothwell, - -	7	1	...	...	7	1	1	...
Cambuslang, - -	4	1	1	...	3	...	1	...
Cambusnethan, -	2	...	1	...	4	...	...	...
Dalserf, - -	1	...	...	...	...	1	...	1
Dalziel, - -	...	...	...	...	...	1	...	...
Hamilton, - -	1	...	...	...	...	...	...	...
New Monkland, -	5	...	1	...	2	...	1	...
Old Monkland, -	2	1	...	...	3	...	...	...
Shotts, - - -	4	...	3	...	...	...	3	...
MIDDLE WARD, -	38	4	7	1	26	4	9	1
TOTAL FOR 1929, -	43	7	21	2	19	8	12	...

\* Includes 2 New Schools, 1 Miners' Welfare Institute, 1 Mission Hall,  
1 Band Practice Hall, 1 Rifle Range Building, and 1 Chapel.

† Electrical Transformer House.

‡ In this column are included plans for additions to existing dwelling-  
houses. In this way 39 apartments were added to 15 houses.

§ Includes additions to 6 Miners' Welfare Institutes and additions to  
3 School Buildings.

|| Rebuilding of Picture House destroyed by fire.



TABLE II.—SHOWING NUMBER OF HOUSES AND SHOPS SET FORTH IN  
PLANS SUBMITTED UNDER BY-LAWS REGULATING THE BUILDING  
OR RE-BUILDING OF HOUSES OR BUILDINGS DURING 1930.

PARISH.	NEW BUILDINGS OF						TOTAL
	One Apartment.	Two Apartments.	Three Apartments.	Four Apartments.	Five Apartments and upwards.	Shops.	
Avondale, - -	...	1	1	4	...	...	6
East Kilbride, -	...	4	14	1	2	...	21
Glasford, - -	...	...	...	...	...	...	...
Stonehouse, -	...	...	1	.	1	...	2
Blantyre, - -	...	...	...	...	...	...	...
Bothwell, - -	...	1	...	9	1	2	13
Cambuslang, -	...	4	2	...	18	1	25
Cambusnethan, -	...	40	40	...	...	..	80
Dalserf, - -	...	...	...	1	...	...	1
Dalziel, - -	...	...	...	...	...	...	...
Hamilton, - -	...	...	1	...	...	...	1
New Monkland,	...	12	14	3	...	1	30
Old Monkland, -	...	...	...	...	...	1	1
Shotts, - -	...	8	16	1	2	1	28
MIDDLE WARD,	...	70	89	19	24	6	208
TOTAL FOR 1929,	...	75	61	15	21	20	192

WILLIAM MARTIN,  
*Buildings Inspector.*

## COUNTY HOSPITAL

NEAR

## MOTHERWELL

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REPORT BY THE PHYSICIAN-SUPERINTENDENT,  
JOHN REID, M.D., D.P.H., F.R.F.P.S.

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1930

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At the beginning of the year 162 cases were in residence. Throughout the year 2,707 were admitted, making a total of 2,869. Of these, 2,497 were discharged recovered or improved, 212 died, and 160 were in hospital at the end of the year. The total number of admissions was 414 in excess of that of the previous year.

SCARLET FEVER admissions were 109 more than the previous year. The type of disease still remains very mild and the death-rate low. The conclusions arrived at by treating the mild variety with scarlet fever antitoxin are given later.

DIPHTHERIA notifications have been increasing for the last five years. This, to some extent, is due to the encouragement given to practitioners to send in cases with any suspicious throat lesion, and also to the habit of notifying positive swabs in contacts as diphtheria. 108 bacteriological cases without clinical signs were treated. 96 cases with inflamed throats but bacteriologically negative were discharged throughout the year, and 75, who had neither throat lesion nor positive swab, are included in the revised diagnoses.

ENTERIC FEVER.—Since the termination of the war enteric fever admissions to hospital have been declining. In 1929 only 11 cases were admitted. In the early part of the year under review a sudden outbreak of paratyphoid sent up the admissions to 107. The outbreak was due to the Paratyphoid B. organism.

**PUERPERAL SEPSIS** admissions were 132 as compared with 111 for the previous year. Although the average day of admission is slowly declining it is still 6.2 days for the present year. The Pyrexia Regulations and the facilities provided by the Local Authority for hospital treatment give every encouragement for early removal and freeing the attendant from all worry in such cases.

There is still a tendency in some quarters to keep the patient lying flat on her back and to wait for urgent signs, such as rigors, before notifying the case. Where the patient feels well and the friends are not desirous of removal much could be done by keeping the patient sitting in the upright position for drainage, by cleanliness, clearing out the intestines, and by giving a large dose of streptococcal antitoxin. The serum is freely provided by the Local Authority and has been found of considerable value used prophylactically in badly lacerated cases.

Fifty per cent. of the cases were classified as mild and 27 per cent. as very severe. Several of the latter were not admitted until moribund.

Of late there has grown up a tendency to send threatened abortions to the fever hospital notified as puerperal sepsis. Nothing but harm will result from introducing cases requiring clearing out and often bled white to a hospital dealing with sepsis.

**PNEUMONIA** numbers are still increasing. 386 cases were admitted. Of the 99 in which the diagnosis was altered, 49 suffered from bronchitis. Among the others were found cases of constipation, impetigo rheumatism, and others without pulmonary signs.

There are still too many being sent in—often during the night—dying. Rest is absolutely essential in an adult seriously ill from pneumonia. Nothing but harm results from removal of adult cases of pneumonia after the fourth day of illness. These cases should be kept at rest until after the crisis, irrespective of the housing conditions, then sent in for convalescence.

**TUBERCULOSIS** work is now chiefly confined to urgent cases waiting for beds in sanatoria. The increase in the pulmonary cases is due to a number of patients in whom pneumothorax and refills were undertaken for the sanatoria. 17 cases had 74 refills of air.

**VENEREAL DISEASES.**—121 patients were admitted to the wards. In the outdoor department 5,274 attendances were recorded. This figure is 1,411 in excess of that of the previous year.

**MEASLES AND WHOOPING COUGH.**—Owing to the limited accommodation only 48 cases were treated. Of these, approximately a half were admitted as other diseases.

**RADIOLOGICAL WORK.**—905 cases were photographed and reported upon.

The number of admissions from ALL DISEASES was greatest in the month of June. The total for the whole month was 252. During the week ending 29th November, 80 were admitted. The greatest number admitted on one day was 20, on 28th November. The average daily number of patients resident was 199. The greatest number resident on any one day was 245, on 4th February; and the smallest, 156, on 7th May.

The average duration of residence of all cases discharged was 30.3 days; of all recovered cases, 32 days; and of fatal cases, 10 days.

The fatality rate, calculated on all cases discharged, was 7.8 per cent. This figure includes all cases dying in hospital.

The diagnosis of the medical attendant was revised in 699 cases, or 25.8 per cent. of the total discharged.

Request for removal of patients to hospital was made by the medical attendant in 64 per cent. of the cases, and by the Public Health Department in 35.9 per cent.

**ACCOMMODATION.**—2,707 patients were admitted to the hospital throughout the year. This is the greatest number ever admitted in one year, and has resulted in dangerous overcrowding many times. Diphtheria, pneumonia, and puerperal numbers have been steadily increasing for several years. The growing demand among the population for hospitalisation, the increasing desire of doctors to send patients to hospital, and the fear on the part of general hospitals of admitting anything infectious, put an undue and increasing strain on isolation hospitals. Although extensions and plans have been discussed for several years nothing tangible has resulted.

ELECTRICAL INSTALLATION.—For some time the wiring of the original hospital has given rise to much trouble. After thorough examination, parts were found to be dangerous from a fire point of view. Several of the original main cables were also found to be in a bad condition. As the newer part of the hospital is on A.C. current and the older part on D.C. current it was determined to change the whole hospital to A.C. 250 volts 50 cycles when the new system was available for the district.

A complete new switchboard has been installed in a separate room; the older main cables have been replaced and laid direct in the ground on what is known as the "Solid System." All the older pavilions have been re-wired and modern switch-gear installed. The wiring of the newer wards has been examined and brought up-to-date where defective.

The two transformers in use at present will be removed when the final change over to 50 cycles takes place.

## SCARLET FEVER.

62 cases of scarlet fever were in hospital at the beginning of the year. Throughout the year 841 patients were admitted. In 116 instances the diagnosis was revised, and 25 other cases proved to be suffering from scarlet fever. Of these 812 cases, 757 were discharged well, 3 died, and 52 were in hospital at the end of the year.

REMOVAL TO HOSPITAL was carried out in 95·2 per cent. of the cases in the first week of illness, 2·3 per cent. in the second week, and 2·3 per cent. in the third week or later.

THE AVERAGE DAY OF DISEASE of all cases was 3·6 days.

THE AVERAGE DURATION OF RESIDENCE of all cases was 32·9 days; of recovered cases, 33 days; and of fatal cases, 17·3 days. The following table indicates the period of residence of the 757 recovered cases :—

Week of Discharge.	No. of days in Residence when Discharged.								No. of Cases in each day.								No. of Cases in each week.
Under fifth,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	255
Fifth, - -	29	30	31	32	33	34	35	79	66	58	22	41	16	25	—	—	307
Sixth, - -	36	37	38	39	40	41	42	24	20	14	8	12	10	11	—	—	99
Seventh, - -	43	44	45	46	47	48	49	3	11	8	1	4	5	2	—	—	34
Eighth, - -	50	51	52	53	54	55	56	6	4	3	2	3	2	—	—	—	20
Ninth, - -	57	58	59	60	61	62	63	3	1	1	2	2	2	2	—	—	13
Tenth, - -	64	65	66	67	68	69	70	3	4	1	—	3	—	1	—	—	12
Over ten weeks, -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17
Total Number of Cases, - - - - -																	757

TYPE OF DISEASE.—716, or 94·2 per cent., of the total cases discharged were classified as mild; 32, or 4·2 per cent., as moderately ill; and 12, or 1·5 per cent., as very severe. In the latter group 2 were septic and 1 toxic.

THE FATALITY RATE, as calculated on the discharges, was 0·3 per cent.

A female, aged 5 years, was notified as enteritis. The child was admitted in a moribund condition suffering from toxic scarlet fever. In spite of a large dose of scarlet fever antitoxin the patient died a few hours after admission.

A female, aged 2 years, was originally a mild scarlet fever. The patient, however, developed a septic naso-pharyngitis and died after 37 days.



A male, age 4 years, was admitted seriously ill on the 5th day of disease. This child had 90 c.c. of scarlet fever antitoxin and died from a broncho-pneumonia.

**CORRECTED DIAGNOSES.**—Of the cases notified as scarlet fever, 13·7 per cent. were wrongly diagnosed. These were:—Bronchitis, 3; burn, 1; chickenpox, 3; dermatitis, 1; diphtheria, 1; doubtful, 54; eczema, 1; enteritis, 1; erythema, 1; large tonsils, 1; measles, 5; naso-pharyngitis, 1; negative, 27; nephritis, 4; otitis media, 1; pneumonia, 3; positive swab, 1; sore throat, 5; teething, 1; vaginitis, 1.

**COMPLICATIONS.**—26·8 per cent. of the cases discharged had one or more complications.

*Glands.*—81, or 10·6 per cent., of the cases discharged, showed glandular enlargement. These were:—Non-suppurative adenitis, 70; suppurative adenitis, 11. All degrees of glandular involvement are included.

*Ear.*—38, or 5 per cent., developed otitis media; 4 were moist on discharge, and 2 developed acute mastoiditis.

*Heart.*—In 7 cases transient involvement was noted. In 3 organic disease resulted.

*Nose.*—68, or 8·9 per cent., developed rhinitis.

*Joints.*—In 8, or 1 per cent., transient arthritis was present.

*Kidney.*—13, or 1·7 per cent., had true nephritis, and 5 albuminuria. 1 of the nephritis cases was admitted with uræmia.

*Lungs.*—Bronchitis, 1; broncho-pneumonia, 1; empyema, 1.

*Eye.*—Conjunctivitis, 6; dacryo-cystitis, 1.

*Skin.*—Boils, 5; herpes, 1; impetigo, 5; paronychia, 13.

*Sepsis.*—Abscesses, 4; sores, 5.

*Other Complications.*—Enteritis, 5; jaundice, 3; positive swab, 7; tonsillitis, 3.

*Other Conditions present on Admission and not related to the Attack of Scarlet Fever.*—Burn, 1; chronic blepharitis, 1; chronic otitis media, 9; eczema, 5; ichthyosis, 1; impetigo, 4; mental defect, 1; old cardiac disease, 9; old sinus, 1; puerperal sepsis, 1; scabies, 2; vaginitis, 1.

The two following tables show the age-periods and week of illness at which the complications occurred :—

AGE.	CERVICAL ADENITIS.		OTITIS MEDIA PURULENTA.			CARDIAC COMPLICATIONS.		Rhinitis.	Mastoiditis.	Arthritis.	Nephritis.
	Suppurative.	Non-Suppurative.	Left.	Right.	Double.	Organic.	Functional.				
Under 1 Year, -	—	1	1	—	—	—	—	—	—	—	—
-2 " -	1	3	—	—	2	—	—	6	—	—	—
-3 " -	4	4	3	3	1	—	—	13	—	—	—
-4 " -	1	6	2	4	—	—	—	12	—	—	2
-5 " -	1	6	—	3	1	—	—	12	—	—	1
-6 " -	1	14	1	1	1	—	—	8	—	1	2
-7 " -	1	5	2	2	3	—	—	6	1	—	3
-8 " -	1	7	1	3	—	—	2	2	—	—	2
-9 " -	—	6	—	1	—	1	1	4	—	2	1
-10 " -	—	2	—	1	1	—	—	3	1	1	—
-15 " -	—	11	—	—	—	—	1	2	—	—	2
-20 " -	—	4	—	—	—	2	3	—	—	3	—
Over 20 " -	1	1	—	1	—	—	—	—	—	1	—
Total, -	11	70	10	19	9	3	7	68	2	8	13

WEEK OF ILLNESS.	CERVICAL ADENITIS.		OTITIS MEDIA PURULENTA			CARDIAC COMPLICATIONS.		Rhinitis.	Mastoiditis.	Arthritis.	Nephritis.
	Suppurative.	Non-Suppurative.	Left.	Right.	Double.	Organic.	Functional.				
First, - -	4	30	4	4	1	—	—	36	—	4	—
Second, - -	2	10	1	4	3	1	2	4	—	—	1
Third, - -	3	13	1	6	2	1	5	9	1	2	7
Fourth, - -	2	10	1	2	2	—	—	9	1	2	3
Fifth, - -	—	5	1	1	1	1	—	8	—	—	1
Sixth, - -	—	1	—	—	—	—	—	2	—	—	1
Seventh, - -	—	—	1	—	—	—	—	—	—	—	—
Eighth, - -	—	1	1	2	—	—	—	—	—	—	—
Ninth, - -	—	—	—	—	—	—	—	—	—	—	—
Total, -	11	70	10	19	9	3	7	68	2	8	13

**Diphtheria Antitoxin** was used in 58 cases. The average amount given was 7,500 units.

**MIXED INFECTIONS.**—Chickenpox, 1; mumps, 1; measles, 6; 4 cases were incubating measles.

**CROSS INFECTIONS.**—7 cases were infected with measles in hospital.

**“ RETURN ” CASES.**—28 days is taken as the period within which a case is regarded as a “ return.” In the following figures, cases which proved on observation not true cases have been disregarded. 3 cases presumably infected 5 others. The 3 cases were mild in type and clean while in hospital. One of the “ return ” cases died from a septic naso-pharyngitis and encysted empyema. Another, notified as enteritis, died from toxic scarlatina.

The infectivity rate is 0.39 per cent. of all true cases discharged.

Summary of the most important statistics relating to scarlet fever during the past six years :—

	1925.	1926.	1927.	1928.	1929.	1930.
Number of scarlet fever patients discharged recovered, -	800	707	465	661	676	757
Number of presumably infectious cases discharged, - - -	20	9	12	5	2	3
Infectivity rate, - - -	2.5	1.2	2.5	0.75	0.29	0.39
Number of deaths from scarlet fever, - - - -	16	7	3	5	2	3
Fatality rate, - - - -	1.9	0.98	0.64	0.75	0.2	0.3
Average duration in days of the cases discharged, - - -	51.9	50.6	51.9	43.6	38.2	32.9

### Ionisation for Otitis Media.

35 cases of otitis media were treated with zinc ionisation. All the cases were first tried for a short period with the usual antiseptic treatment.

Of 29 cases of scarlet fever, including 6 of chronic otitis media, cure apparently resulted in 26, and 3 were moist after varying periods of treatment.

6 other patients (other diseases) with otitis media were either cured or improved.

Both ears were involved in 5, the right ear in 21, and the left ear in 9. The average number of applications given was 3.4.

### Schick Test in Scarlet Fever.

	AGE-PERIODS.											
	1	2	3	4	5	6	7	8	9	10	Over 10	Total.
Positive,	—	8	12	13	14	11	15	11	4	7	22	117
Negative,	7	19	58	58	79	67	55	65	49	31	148	636
Total,	7	27	70	71	93	78	70	76	53	38	170	753

100 of the susceptibles were immunised with toxoid-antitoxin.

### Prophylaxis in Other Diseases.

Children admitted to hospital suffering from other diseases, like measles, whooping cough, tuberculosis, &c., as far as possible had the Dick Test performed, and the susceptibles were immunised.

Of 191 cases, 25 were positive, and of these, 5 were immunised against scarlet fever.

### Scarlet Fever Antitoxin.

Of late, statements, of great importance if correct, have appeared indicating that serum given early intravenously practically eliminates complications and reduces the period of residence to approximately a fortnight. It was with the object of verifying these that the present experiment was undertaken.

In 1926, when scarlet fever antitoxin was comparatively new, a number of cases were treated with it. The chief object was to assess its true value in preventing complications.

The conclusions come to in the 1926 experiment were as follows:—

- (1) Serum should be given in all serious cases, septic or otherwise.
- (2) A number of lives can undoubtedly be saved. The fatality rate will not be eliminated any more than it has been in diphtheria with serum. As the day of disease is important, late moribund cases will not be saved.

- (3) The reduction in the complication rate, the duration of residence, and the return rate seem to indicate that the serum had a favourable influence.
- (4) Serum after-effects are troublesome in a number of instances.
- (5) Concentrated serum only should be used.

In the present trial one-third of the cases had 5 c.c. of Messrs. Parke, Davis & Co.'s concentrated scarlet fever antitoxin intramuscularly, one-third had 5 c.c. intravenously, and one-third were used as controls. Actually 278 cases had serum intramuscularly, 209 intravenously, and 273 were used as controls.

In the following comparative table serum cases as a whole are compared with the non-serum cases.

COMPLICATIONS.	273 Non-Serum Cases.		487 Serum Cases.		Total Non-Serum and Serum Cases for Year.	
	Number.	Percentage.	Number.	Percentage.	Number.	Percentage.
Glands, - - -	36	13.1	45	9.2	81	10.6
Ears, - - -	13	4.7	25	5.1	38	5.0
Heart, - - -	3	1.0	7	1.4	10	1.3
Nose, - - -	24	8.7	44	9.0	68	8.9
Joints, - - -	4	1.4	4	0.8	8	1.0
Kidneys, - - -	8	2.9	10	2.0	18	2.3
Number of Cases with Complications, }	78	28.5	126	25.9	204	26.8

A comparison of the figures for the serum and non-serum cases clearly indicates that the difference is by no means striking. Glands, joint pains, and kidney involvement were slightly less in the serum cases, whereas ear, heart, and nose complications were slightly more in the serum cases.

Taking the intravenous cases as compared with the intramuscular treated cases, glands, ears, nose, and joint pains were less frequent

in the cases having intravenous serum; whereas, heart and kidney complications were greater in the intravenous cases.

21.5 per cent. of the intravenous cases had one or more complications as compared with 29.1 per cent. in the intramuscular group, and 28.5 per cent. in the controls.

RESIDENCE IN HOSPITAL.—The average residence in hospital of all cases was 32.9 days; of non-serum cases, 31.6 days; and of serum cases, 33.6 days.

DESQUAMATION.—Typical desquamation occurred in 74.3 per cent. of the non-serum cases and in 48.2 per cent. of the serum cases.

“RETURN” CASES.—2 “return” cases resulted from the non-serum cases and 3 from the serum group.

SERUM RASHES.—In the intramuscular group 22 serum rashes occurred as compared with 11 in the intravenous group.

CLINICAL COURSE.—716, or 94.2 per cent., of the cases were mild in character. Unless serum diminishes complications more than it has done in the present experiment there is no object in giving serum in mild cases. On the other hand, in moderately ill cases and in the septic and toxic groups scarlet fever antitoxin is of the greatest value, and should always be given even in late septic cases, preferably combined with polyvalent serum of the anti-bacterial type.

### Conclusions.

The conclusions drawn from the experiment are similar to those formulated in 1926.

- (1) That antitoxin should be given in all cases of serious scarlet fever.
- (2) That there is no justification in giving it in the very mild type prevalent at the present time.
- (3) That complications are less in serum treated cases, but not striking enough to justify the administration in very mild cases.
- (4) That no serious serum after-effects were noted.
- (5) That 2 weeks hospital residence in the majority of cases is too short. A fair average is about a month.



## DIPHTHERIA.

38 cases of diphtheria were in hospital at the beginning of the year, 699 were admitted as such, 332 were wrongly diagnosed, and 2 others proved to be cases of diphtheria. Of these 407 patients, 353 were discharged well, 21 died, and 33 were in hospital at the end of the year.

REMOVAL TO HOSPITAL was carried out within the first three days of illness in 52.1 per cent. of the cases. In the fatal cases the average duration of illness prior to admission was 4.6 days.

THE AVERAGE DAY OF DISEASE of all cases on admission was 3.9 days.

DURATION OF RESIDENCE.—The average duration of residence of all cases was 34.5 days; of recovered cases, 35.9 days; and of fatal cases, 10.1 days.

### TYPE OF DISEASE.

**Faucial Diphtheria.**—In 321 cases, including 11 fatal, the faucial region of the throat was affected.

*Mild.*—In 238 instances, including 2 fatal, the exudate was limited, with little or no toxæmia. 11 cases had serum prior to admission. The average amount of serum given in hospital was 8,400 units. 11 patients had scarlet fever antitoxin. In 20 instances where the organism was isolated, 18 proved avirulent and 2 virulent.

In this group 2 children died from concurrent disease—bronchopneumonia, 1; phlegmonous gastritis, 1.

*Complications and Sequelæ.*—Albuminuria, 1; arrhythmia, 1; bronchitis, 1; cardiac murmur, 1; epistaxis, 1; herpes, 1; otitis media, 2; palatal paralysis, 2; paronychia, 1; pyelitis, 1; rhinitis, 2; serum rash, 15; suppurative adenitis, 2; tonsillitis, 1.

*Moderate.*—In 50 cases the membrane or exudate was more extensive and accompanied by considerable toxæmia. The average amount of serum given was 22,500 units. 3 patients had, in addition, scarlet fever antitoxin. In 2 instances the organism proved avirulent during convalescence.

*Complications and Sequelæ.*—Abscesses, 1; adenitis, 2; arrhythmia, 4; pharyngeal and leg paralysis, 1; palatal paralysis, 1; serum rash, 6.

*Severe.*—In 33 cases, including 9 fatal, toxæmia was profound. 1 case had serum prior to admission. The average amount of serum given was 93,500 units. 15 patients had scarlet fever antitoxin. In 1 case the organism proved avirulent during convalescence.

*Complications and Sequelæ.*—Adenitis, 1; albuminuria, 1; cardiac paralysis, 4; cardiac and palatal paralysis, 2; cellulitis, 1; otitis media, 1; palatal paralysis, 4; pneumonia, 1; rhinitis, 1; serum rash, 4.

**Laryngeal Diphtheria.**—In 24 cases, including 2 fatal, the larynx was involved.

*Mild.*—In 13 instances the stenosis was slight. The average amount of serum given was 8,900 units.

*Moderate.*—3 patients, including 1 fatal, showed signs of more extensive involvement. The average amount of serum given was 24,000 units. 1 case had scarlet fever antitoxin.

*Severe.*—In 8 cases, including 1 fatal, the obstruction was extreme and required immediate operative interference. 2 patients had serum prior to admission. The average amount of serum given was 21,000 units. 1 case had scarlet fever antitoxin.

*Complications and Sequelæ.*—Adenitis, 1; broncho-pneumonia, 1; nephritis, 1; serum rash, 1; intubation and tracheotomy, 1; tracheotomy, 7 (1 fatal).

**Faucial and Laryngeal Diphtheria.**—The faucial and laryngeal regions were involved in 19 cases, including 1 fatal.

Of 7 mild cases, 1 had serum before admission. The average amount given in hospital was 12,500 units.

In 6 cases of moderate severity an average of 26,000 units of serum was required.

6 cases, including 1 fatal, were of the severe type. 6 had tracheotomy performed and 1 died from pneumonia. The average amount of serum given was 47,300 units, and 1 patient had, in addition, scarlet fever antitoxin.

*Complications and Sequelæ.*—Nephritis, 1; pneumonia, 1; suppurative adenitis, 2; tracheotomy, 6.

**Faucial, Nasal, and Laryngeal Diphtheria.**—1 fatal case had been neglected for 6 days. Tracheotomy was performed. This patient had 80,000 units of serum and 15 c.c. of scarlet fever antitoxin in hospital.

**Faucial and Nasal Diphtheria.**—There were 4 cases, 3 of which were fatal. The average amount of serum given was 74,000 units. 2 patients had scarlet fever antitoxin.

**Tracheo-Bronchial Diphtheria.**—3 patients were admitted moribund suffering from broncho-pneumonia. Tracheotomy was performed in all. The average amount of serum given was 24,000 units. 1 case had scarlet fever antitoxin.

**Nasal Diphtheria.**—2 cases had, on an average, 10,000 units of serum.

The following table summarises the sites of membrane in the total cases discharged :—

SITE OF MEMBRANE.	MILD.		MODERATE.		SEVERE.		TOTAL	
	Recovered.	Died.	Recovered.	Died.	Recovered.	Died.	Recovered.	Died.
Faucial, - - - - -	236	2	50	—	24	9	310	11
Laryngeal, - - - - -	13	—	2	1	7	1	22	2
Faucial and laryngeal, -	7	—	6	—	5	1	18	1
Faucial, nasal, and laryngeal,	—	—	—	—	—	1	—	1
Faucial and nasal, - - -	1	—	—	—	—	3	1	3
Tracheo-bronchial, - - -	—	—	—	—	—	3	—	3
Nasal, - - - - -	1	—	1	—	—	—	2	—
							353	21

**DIPHTHERITIC PARALYSIS.**—In 19 cases, or 5 per cent. of the clinical cases, paralysis in one form or another was noted. The regions affected were :—Heart, 4 ; heart and palate, 2 ; palate, 7 ; pharynx and leg, 1 ; arrhythmia, 5.

MIXED INFECTIONS.—Diphtheria and measles, 5; diphtheria and mumps, 1; diphtheria and scarlet fever, 1; diphtheria and whooping cough, 4.

COMPLICATIONS.—72, or 19·2 per cent., of the clinical cases developed one or more complications. This figure includes serum rashes.

OTHER CONDITIONS PRESENT ON ADMISSION.—Boils, 1; chronic blepharitis, 1; chronic otitis media, 1; eczema, 1; heart disease, 1; impetigo, 2; tubercular spine, 1; vaginitis, 1.

CORRECTED DIAGNOSES.—332, or 47 per cent., of the cases discharged were wrongly diagnosed:—Adenitis, 1; albuminuria, 1; conjunctivitis, 1; diarrhoea, 1; empyema, 1; enteric fever, 1; laryngeal stenosis, 1; measles, 6; naso-pharyngitis, 2; negative, 75; otitis media, 2; pneumonia, 4; positive swabs, 108; scarlet fever, 21; sore throat, 96; tonsillitis, 8; whooping cough, 3.

CASES WHICH PROVED TO BE DIPHThERIA ON OBSERVATION.—Measles, 1; scarlet fever, 1.

FATALITY RATE.—21 cases, or 5·6 per cent. of the clinical cases, were fatal.

FATAL CASES.—Of the 21 deaths, 12 were males and 9 females. The average age was 6·9 years; the average duration of illness prior to admission was 4·6 days; and the average residence in hospital was 10·1 days. The average amount of serum given was 81,200 units. 8 patients had over 100,000 units. 9 cases had scarlet fever antitoxin. 14 of the fatal cases had been ill more than 3 days before being sent to hospital.

OPERATIVE TREATMENT.—In 17 cases tracheotomy was performed, 11 recovered and 6 died. In 1 instance intubation and tracheotomy was performed. The patient recovered. The fatality rate was, therefore, 33·3 per cent. of the cases operated on.

ANTITOXIN.—15, or 4 per cent. of the cases discharged, received serum before admission to hospital. The average amount given in all clinical cases discharged was 20,400 units. In 36 instances scarlet fever antitoxin was administered with benefit. In the more malignant cases the intravenous route was adopted. 15 children had over 100,000 units given intravenously and intramuscularly.

After-effects were noted in 26, or 6·9 per cent., of the 374 clinical cases. The rashes were:—Urticarial, 24; scarlatiniform, 1; morbilliform, 1. Messrs. Burroughs, Wellcome & Co.'s concentrated serum was used throughout the year.

**BACTERIOLOGICAL CASES.**—108 cases were bacteriological cases without clinical signs and are not classified as true diphtheria cases. All were Schick tested on admission; 69 were negative and 39 positive. In 31 instances the organism proved avirulent and in 1 virulent.

The 75 negative cases of the corrected diagnoses group were cases where nothing was present on the throat and where no positive swab was obtained while in hospital. The majority of those cases had a positive swab before coming into hospital. All were Schick tested; 16 were positive and 59 negative.

Of 96 simple sore throat cases, the Schick Test was positive in 4 instances and negative in 92.

#### Dick Test.

Diphtheria cases had the Dick Test performed as a routine, and the susceptibles were immunised. Of 517 notified cases, 164 were positive, and 156 were immunised against scarlet fever.

AGE-PERIODS.												
	1	2	3	4	5	6	7	8	9	10	Over 10	Total
Positive,	2	11	16	23	25	23	18	11	8	5	22	164
Negative,	3	14	25	29	35	24	33	28	22	28	112	353
Total,	5	25	41	52	60	47	51	39	30	33	134	517

### ENTERIC GROUP.

Of 107 cases notified as enteric fever, the diagnosis was revised in 33. 1 other proved to be a case of the disease. Of these 75 cases, 71 recovered, 2 died, and 2 were in hospital at the end of the year.

REMOVAL TO HOSPITAL was carried out during the first week of illness in 16 cases, or 21·9 per cent.; during the second week in 42 cases, or 57·5 per cent.; and during the third week in 15 cases, or 20·5 per cent.

THE AVERAGE DAY OF DISEASE was 11·2 days, and the average duration of residence in hospital 32·6 days.

THE AVERAGE AGE was 14·4 years.

SEX.—Male, 30; female, 43.

THE FATALITY RATE was 3·7 per cent.

A male, aged 4 years, suffering from a paratyphoid B. infection died from intestinal hæmorrhage.

A female, age 16 years, died from hypostatic pneumonia, the result of a severe typhoid infection.

TYPE OF DISEASE.—4 of the cases, including 1 fatal, were due to B. typhosus, and 69, including 1 death, to B. paratyphosus B. 61 were mild, 5 moderate, and 5 severe.

Table showing type of disease and time of admission to hospital:—

Week of Illness.			Mild.		Moderate.		Severe.				Total Cases and Week of Illness.	
							Recovered.		Died.			
			No. of Cases.	Percentage	No. of Cases.	Percentage.	No. of Cases.	Percentage.	No. of Cases.	Percentage.	No. of Cases.	Percentage.
First,	-	-	13	21·3	—	—	2	40 0	1	50·0	16	21·9
Second,	-	-	34	55·7	4	80·0	3	60·0	1	50·0	42	57·5
Third,	-	-	14	22·9	1	20·0	—	—	—	—	15	20·5
Total,	-	-	61	83·5	5	6·8	5	6 8	2	2 7	73	—



COMPLICATIONS. — Albuminuria, 1; femoral thrombosis, 2; hæmaturia, 1; hypostatic pneumonia, 1; intestinal hæmorrhage, 4; otitis media, 1; pyuria, 1.

RELAPSE.—In 1 instance a relapse occurred and in 1 a recrudescence.

CORRECTED DIAGNOSES.—Endocarditis, 1; enteritis, 2; erythema, 1; negative, 11; pityriasis rubra, 1; pneumonia, 1; positive Widal, 13; pulmonary tuberculosis, 2; ulcerative colitis, 1.

OTHERS.—1 case notified diphtheria proved to be a case of enteric fever.

PARATYPHOID B.—The epidemiological features of the small outbreak of paratyphoid fever will be found in the report of the Medical Officer of Health. Here a short résumé of the clinical features is appended.

Nearly 90 per cent. of the paratyphoid cases admitted were mild in type. At the beginning of the outbreak a fair number were missed. Later, however, cases were recognised earlier. The initial signs and symptoms were quite characteristic of a mild paratyphoid—headache, general malaise, and in quite a number, abdominal pain. Constipation was the rule, and in a few there was a history of mild delirium.

*Rash.*—In 64 per cent. of the cases coarse rose spots were present. In some the rash was measly in character.

*Temperature.*—The temperature ranged about 100° to 101°F. for less than a week in the majority of cases. Only in a few did it simulate the characteristic typhoid temperature.

*Pulse.*—In the majority of cases the pulse was rapid. In 7 only was it below 100 per minute throughout the febrile period.

*Abdominal Signs.*—The full, tumid abdomen was only present in 4 or 5 cases. The spleen was palpable in 2 only.

Constipation was the rule. In 2 cases intestinal hæmorrhage was present, 1 of these, a child, died from bleeding.

*Toxæmia.*—In 6 cases toxæmia was marked; sweating was not present in any case.

*Bacteriological Results.*—In no case of the paratyphoid group was a positive blood culture obtained. In 7 instances the fæces was positive and in 3 the urine. The agglutinin titre was over 1,000 units in 25 cases. In 7 patients the blood agglutinated both B. paratyphosus B. and B. typhosus.

### PUERPERAL SEPSIS.

6 patients were in hospital at the beginning of the year, 132 were admitted as puerperal fever or pyrexia, 13 were wrongly diagnosed, and 1 other proved to be a case of puerperal sepsis. Of these 126 patients, 92 recovered, 25 died, and 9 were in hospital at the end of the year.

TYPE OF DISEASE.—Mild, 59; moderate, 26; severe, 32.

THE AVERAGE AGE of the patients was 30·1 years; 5 were under 20 years of age, 25 between 21 and 25 years, 35 between 26 and 30 years, 30 between 31 and 35 years, 17 between 36 and 40 years, and 5 over 40 years of age.

THE AVERAGE DURATION OF ILLNESS of all cases prior to admission was 6·2 days; of recovered cases, 5·9 days; and of fatal cases, 7·2 days.

THE AVERAGE DURATION OF RESIDENCE was 28·7 days.

ATTENDANCE AT BIRTH.—Doctor, 13; midwife, 40; doctor and midwife, 50; hospital cases, 14.

THE FATALITY RATE was 21·3 per cent.

COMPLICATIONS AT BIRTH.—Abortion, 5; eclampsia, 1; endocarditis, 2; hæmorrhage, 2; induction of labour, 1; instrumental delivery, 40; laparotomy, 1; macerated foetus, 1; miscarriage, 1; perineal tears, 23; premature, 1.

NUMBER OF PREGNANCY at which disease occurred: —

Pregnancy.	No. of Cases.		Instrumental Delivery.	
	Recovered.	Died.	Recovered.	Died.
1	28	6	19	1
2	14	5	7	3
3	14	4	1	—
4	8	2	2	—
5	10	4	1	2
6	6	—	1	—
7	3	—	—	—
8	2	1	—	—
9	2	1	—	1
10	—	1	—	—
11	1	—	1	—
12	2	1	—	1
13	1	—	—	—
14	1	—	—	—
Total, - -	92	25	32	8
	117		40	

COMPLICATIONS DURING THE FEVER.—Abscesses, 1; albuminuria, 2; anæmia, 14; bronchitis, 2; cystitis, 3; empyema, 1; irido-cyclitis, 1; insanity, 2; mastitis, 8; pelvic cellulitis, 5; pericarditis, 1; peritonitis, 4; phlegmasia, 11; pleural effusion, 1; pneumonia, 4; pyelitis, 7; tonsillitis, 1.

CORRECTED DIAGNOSES.—Abortion, 3; empyema, 1; endocarditis, 1; hæmorrhage, 2; mastitis, 1; negative, 1; pelvic cellulitis, 1; phlegmasia, 1; pneumonia, 1; scarlet fever, 1.

OTHERS WHICH PROVED TO BE CASES OF PUERPERAL FEVER.—Pneumonia, 1.

BLOOD CULTURES. — Of 106 blood cultures taken 6 only were positive.

WASSERMANN TEST.—12 were positive in 127 tests.

DICK TEST.—2 were positive in 106 skin tests.

POST-PUERPERAL CONDITIONS. — Post-puerperal cases, which arose after a month from confinement, are not included in the true puerperal figures. These were:—Suppurating breasts, 8; phlegmasia, 3, one of whom lost an eye from septic irido-cyclitis; cellulitis of leg, 1; pelvic cellulitis, 1; a case notified as laryngitis died from post-puerperal eclampsia; a pelvic abscess case was complicated with cancer of the ovary.

TREATMENT.—The lines of treatment throughout the year were an initial intra-uterine douche, Fowler position, glycerine drainage, and large doses of streptococcal antitoxin and polyvalent serum.

## ERYSIPELAS.

6 patients were in hospital at the beginning of the year, 64 were admitted, and 12 were wrongly diagnosed. Of these 58 cases, 51 recovered, 4 died, and 3 were in hospital at the end of the year.

SEX.—Male, 19; female, 36.

TYPE OF DISEASE.—Mild, 20; moderate, 26; severe, 9.

SITUATION OF DISEASE.—Face, 49; leg, 4; wandering, 2.

THE AVERAGE AGE was 37.1 years; 6 were under 10 years of age, 3 between 11 and 20 years, 7 between 21 and 30 years, 7 between 31 and 40 years, 21 between 41 and 50 years, 5 between 51 and 60 years, 3 between 61 and 70 years, and 3 over 70 years of age.

THE AVERAGE DAY OF DISEASE was 4.9 days, and the average residence 23.8 days.

THE FATALITY RATE was 7.2 per cent. of the cases discharged.

Of the 4 fatal cases only 1 died from straightforward erysipelas. The others were complicated with pneumonia, diabetes, and cardiac disease with nephritis.

COMPLICATIONS.—Abscesses, 5; cellulitis, 2; cellulitis and nephritis, 1; dacryo-cystitis, 1; broncho-pneumonia, 1; hypostatic pneumonia, 1.

CORRECTED DIAGNOSES. — Burn, 1; cellulitis, 2; dermatitis, 6; impetigo, 1; negative, 1; septic wound, 1.

TREATMENT.—Most of the cases were treated with large doses of scarlet fever antitoxin, 60 c.c. to 100 c.c. The general impression was that scarlet fever antitoxin was as effective as the erysipelas variety.

### TUBERCULOSIS.

At the beginning of the year 1 case was in residence, 80 were admitted, 8 were wrongly diagnosed, and 13 others proved to be cases of tuberculosis. Of these 86 cases, 59 were discharged improved or well, 23 died, and 4 remained in hospital at the end of the year.

The following table shows the age-periods and sexes of the cases discharged :—

AGE.	RECOVERED.		DIED.		TOTAL.	
	Males.	Females.	Males.	Females.	Males.	Females.
-5 years, -	1	2	3	6	4	8
- 10 " .	6	2	3	3	9	5
- 15 " -	2	2	2	—	4	2
- 20 " -	5	15	1	—	6	15
- 25 " -	5	7	1	—	6	7
- 30 " -	7	1	1	—	8	1
- 35 " -	2	—	—	—	2	—
- 40 " -	—	—	—	—	—	—
Over 40 " -	1	1	2	1	3	2
	29	30	13	10	42	40

SEX.—Male, 42; female, 40.

THE AVERAGE AGE was 17·6 years, and the average residence was 16 days.

#### CLASSIFICATION OF CASES.

Glands, - - -	13	Pulmonary, .	45
Abdomen, . . .	2	Meningeal, - - -	15
Joint, - - -	1	General, . - -	5
Spine, - - -	1		

GLANDULAR TUBERCULOSIS.—13. Males, 7; females, 6. The average age was 14·8 years, and the average duration of residence, 24 days.

The cases were abscesses and sinuses, suitable only for aspiration and scraping.

# ABDOMINAL TUBERCULOSIS.—2.

A male, aged 9 years, had a barium meal. He was transferred to a sanatorium.

A male, aged 16 years, had a well-marked abdominal tuberculosis with ascites. He was removed to a sanatorium.

SPINAL TUBERCULOSIS.—1. A female, aged 16 years, had a psoas abscess aspirated.

ARTICULAR TUBERCULOSIS. — 1. A male, aged 13 years, had advanced disease of the elbow joint with sinus formation. The sinuses were scraped and the child removed to a sanatorium.

PULMONARY TUBERCULOSIS. — 45. Of these, 42, representing 19 males and 23 females, were admitted from sanatoria for pneumothorax or re-fills. A full account of the results of pneumothorax will probably be given in the sanatoria reports.

MENINGEAL TUBERCULOSIS.—15. Males, 8; females, 7.

The average age was 8·9 years, and the average residence, 9·2 days.

GENERAL TUBERCULOSIS.—5. Males, 3; females, 2.

The average age was 14 years, and the average residence, 12·4 days.

FATAL CASES.—23. Males, 13; females, 10.

The average age was 13·8 years, and the average residence, 12·1 days.

*Type of Disease.*—General, 5; meningeal, 15; pulmonary, 3.

CORRECTED DIAGNOSES. — Acute adenitis, 1; arthritis, 1; bronchiectasis, 1; cerebro-spinal fever, 1; lymphadenoma, 1; negative, 1; pulmonary abscess, 1; sarcoma of neck, 1.

OTHERS WHICH PROVED ON OBSERVATION TO BE TUBERCULOSIS.—Empyema, 1; encephalitis lethargica, 1; enteric fever, 2; observation, 2; pleurisy, 2; pneumonia, 4; simple adenitis, 1.



# PNEUMONIA.

27 cases were in hospital at the beginning of the year; 386 were admitted; 99 were wrongly diagnosed; and 17 others proved to be cases of pneumonia. Of these 331 cases, 217 recovered, 77 died, and 37 were in hospital at the end of the year.

The following table shows the age-periods and the sex of the cases discharged:—

AGE.	RECOVERED.		DIED.		TOTAL.	
	Males.	Females.	Males.	Females.	Males.	Females.
- 5 years, -	46	17	21	25	67	42
- 10 " -	23	23	1	1	24	24
- 15 " -	14	7	1	—	15	7
- 20 " -	21	7	4	—	25	7
- 25 " -	13	2	1	—	14	2
- 30 " -	7	4	—	1	7	5
- 35 " -	7	4	1	1	8	5
- 40 " -	9	8	7	—	16	8
Over 40 " -	4	1	9	4	13	5
	144	73	45	32	189	105

CLASSIFICATION OF DISEASE.—Acute lobar pneumonia, 180; broncho-pneumonia, 101; hypostatic pneumonia, 2; central pneumonia, 3; unresolved pneumonia, 4; convalescent pneumonia, 2; influenzal pneumonia, 2.

TYPE OF DISEASE.—Mild, 94; moderate, 90; severe, 110.

THE SITUATION OF THE LESION in the lobar cases was as follows:—Double, 18. Right side—Base, 54; apex, 25; middle, 2; whole, 6. Left side—Base, 63; apex, 8; whole, 4.

THE AVERAGE DAY OF DISEASE of all cases on admission was 5·6 days; of recovered cases, 5·2 days; and of fatal cases, 7 days.

THE AVERAGE DURATION OF RESIDENCE of all cases was 24·6 days; of recovered cases, 30·6 days; and of fatal cases, 7·8 days.

THE FATALITY RATE was 26·1 per cent.

COMPLICATIONS.—32, or 10·8 per cent. of the discharges, developed one or more complications. These were:—Adenitis, 1; albuminuria, 1; anæmia, 1; effusion, 1; empyema, 12; enteritis, 4; jaundice, 2; mastoiditis, 1; nephritis, 1; otitis media, 5; phlegmasia, 6; tonsillitis, 1; vaginitis, 1.

CORRECTED DIAGNOSES.—Bronchitis, 49; cardiac disease, 1; cellulitis, 1; constipation, 2; chronic bronchitis and emphysema, 2; empyema, 4; gangrene of lung, 1; impetigo, 1; marasmus, 1; measles, 7; negative, 6; peritonitis, 1; pleurisy, 4; puerperal fever, 1; pulmonary fibrosis, 1; pulmonary tumour, 1; pyelitis, 1; rheumatism, 2; scarlet fever, 2; septicæmia, 1; tonsillitis, 1; tuberculosis, 4; whooping cough, 5.

CASES WHICH PROVED TO BE PNEUMONIA on observation were admitted to hospital as:—Diphtheria, 4; empyema, 2; encephalitis lethargica, 1; influenza, 1; meningitis, 1; observation, 2; paratyphoid, 1; pleural effusion, 1; puerperal fever, 1; scarlet fever, 3.

TREATMENT.—Reliance was placed on rest and good nursing. Drugs and oxygen were used when occasion arose. 14 patients had on an average 100 c.c. of polyvalent pneumococcal serum. Of these, 12 recovered and 2 died.

### Empyema.

Of 16 cases of empyema, 8 were notified as such and 8 as other diseases.

SEX.—Male, 7; female, 9.

THE AVERAGE AGE was 11 years, and the average residence in hospital, 63 days.

TYPE OF INFECTION.—Pneumococcus, 11; streptococcus, 2; staphylococcus aureus, 3.

In 14 instances a rib was resected, and in 2 repeated aspiration was sufficient.

One of the staphylococcus aureus cases died.

### Measles.

17 cases of measles were admitted. In 3 the diagnosis was revised, and 18 others proved to be cases of measles. Of these 32 cases, 21 recovered and 8 died.

SEX.—Male, 22; female, 10.

THE AVERAGE DAY OF DISEASE was 4 days; the average residence, 26 days; and the average age, 5·6 years.

TYPE.—Mild, 15; moderate, 8; severe, 9.

COMPLICATIONS.—Broncho-pneumonia, 8 (fatal); bronchitis, 3; otitis media, 1; rhinitis, 1; suppurative adenitis, 3; tonsillitis, 1.

CORRECTED DIAGNOSES.—Diphtheria, 1; gastritis, 1; nil, 1.

CASES WHICH PROVED TO BE MEASLES on observation were admitted to hospital as:—Diphtheria, 6; pneumonia, 7; scarlet fever, 5.

### Whooping Cough.

7 cases were admitted and 9 others proved to be cases of whooping cough. Of the 16 patients, 10 recovered and 6 were fatal.

SEX.—Male, 7; female, 9.

THE AVERAGE DAY OF DISEASE was indefinite, as many had been ill for several weeks before admission.

THE AVERAGE RESIDENCE was 21·7 days, and the average age, 4·7 years.

TYPE.—Mild, 5; moderate, 5; severe, 6.

COMPLICATIONS.—Bronchitis, 2; broncho-pneumonia, 3; marasmus, 2.

OTHERS WHICH PROVED TO BE CASES OF WHOOPING COUGH.—Diphtheria, 3; meningitis, 1; pneumonia, 5.

### Meningitis.

CEREBRO-SPINAL FEVER. — Of 5 proved cases, 1 recovered and 4 died. 4 were males and 1 female.

The average age was 7·4 years; the average day of disease, 7·6 days; and the average duration of residence, 15·8 days.

*Type of Disease.*—All were serious on admission.

PNEUMOCOCCAL MENINGITIS.—In 6 cases the organism proved to be the pneumococcus. 1 recovered and 5 died.

The average age was 10 years; the average day of disease, 5.3 days; and the average duration of residence, 10 days.

The 5 fatal cases were all moribund on admission.

The recovered case was a male, aged 4 years, who had been ill at least 10 days before admission.

**STREPTOCOCCAL MENINGITIS.**—A male, aged 2 years, who had been ill 5 days, was admitted dying from a streptococcal meningitis.

**COLIFORM MENINGITIS.** — A female, aged 2 years, died from a coliform meningitis.

**B. CRASSUS MENINGITIS.**—A male, aged 14 years, recovered from a *B. Crassus* infection of the meninges.

**SEROUS MENINGITIS.**—A male, aged 21 years, proved to be a case of serous meningitis.

**CORRECTED DIAGNOSES.** Acute nephritis, 2; enteritis, 2; glycosuria, 1; meningismus, 2; negative, 1; poliomyelitis, 1.

### ***Leptospira Icterohæmorrhagiæ.***

The following 4 cases were in all probability cases of infective jaundice although the bacteriological findings were not conclusive. The patients were miners who worked in the same pit.

Case 1.—A male, aged 40 years, was admitted in the early part of the year suffering from jaundice, shivering and headache of 9 days duration.

On admission he was fairly ill, jaundice profound, severe headache and insomnia, liver not palpable, temperature subnormal and pulse slow.

Bacteriological examinations of blood, urine, and fæces were negative.

Case 2.—A male, aged 19 years, had been ill 8 days. He was fairly ill, jaundice intense, sickness, abdominal pain and delirium. The temperature was subnormal and pulse slow.

This patient during the course of his illness developed a Ludwig's angina of streptococcal origin, which almost proved fatal.

Bacteriological examinations revealed spirochaetes in the urine only. Animal experiments were negative.

Case 3.—A male, aged 25 years, was admitted on the third day of disease suffering from headache, sickness and abdominal pain, but no jaundice. Two days later the skin and conjunctivæ became slightly jaundiced, and much bile appeared in the urine. The temperature reached 102°F., but subsided in 4 days.

Bacteriological examination of the urine was negative, but the animal experiment with blood was said to be positive.

Case 4. A male, aged 44 years, had been ill 9 days with headache, shivering and jaundice. In this case the jaundice was marked, temperature 99°F. and pulse rapid. The pulse kept between 90 and 100 per minute.

Bacteriological examinations of blood and excreta were negative.

### Venereal Diseases.

At the beginning of the year 9 cases were in residence. Throughout the year 121 patients were admitted for indoor treatment. Of these, 26 were wrongly diagnosed; and 2 others proved to be cases of venereal disease. Of 106 cases, 97 were discharged in varying stages of improvement, 3 died, and 6 were in hospital at the end of the year.

SEX.—Male, 58; female, 42.

AGE.—1 to 10 years, 18; 11 to 20 years, 15; 21 to 30 years, 36; 31 to 40 years, 17; 41 to 50 years, 9; over 50 years, 5.

The average age of the proved cases was 24 years, and the average duration of residence, 27.6 days.

The indoor cases were:—Gonorrhœa, 38; syphilis, 31; gonorrhœa and syphilis, 16; ophthalmia neonatorum, 14; balanitis, 1.

CORRECTED DIAGNOSES.—Marasmus, 1; myxœdema, 1; negative, 3; pemphigus, 1; simple balanitis, 3; simple ophthalmia, 10; stone in bladder, 1; tubercular keratitis, 1; vaginitis, 5.

OTHERS WHICH PROVED TO BE CASES OF VENEREAL DISEASE were:—Paralysis, 1; septic throat, 1.

COMPLICATIONS AND REASONS FOR INDOOR TREATMENT.—Arsenical dermatitis, 3; arthritis, 4; bubo, 1; cancer penis, 1; cancer tongue, 1; cancer uterus, 1; carbuncle, 1; condylomata, 1; cystitis, 2; epididymitis, 4; iritis, 4; jaundice, 1; keratitis, 4; mercurial poisoning, 1; phimosis and balanitis, 9; periurethral abscess, 1; stricture, 1; warts, 1.

OPHTHALMIA NEONATORUM.—Of 24 cases of notified ophthalmia discharged, 10 were simple and 14 due to gonococci. Of the 14 true cases, 7 were mild, 2 moderate, and 5 severe.

In 1 child, admitted with extensive ulceration of both corneæ, blindness resulted. Of 2 others, who died from marasmus, 1 had an eye destroyed and the other ulceration of both corneæ.

The number and nature of the cases attending at the outdoor clinic and the areas from which they came are shown in the following table. 294 new cases were registered:—227 males and 67 females:—

#### VENEREAL DISEASES, 1930.

	Syphilis.	Gonorrhœa.	Syphilis and Gonorrhœa.	Soft Sore.	Others V. D.	Others Non V. D.	Total.	Indoor Cases.	Indoor Days.	Outdoor Attendances
Middle Ward, -	69	95	11	—	7	42	224	80	2,228	2,427
Upper Ward, -	5	5	—	—	1	7	18	7	129	103
Lower Ward, -	1	2	—	—	—	4	7	5	106	7
Airdrie, - -	2	4	—	—	—	1	7	1	20	58
Coatbridge, - -	4	2	1	—	—	2	9	6	169	48
Hamilton, - -	14	18	2	1	1	2	38	7	179	521
Lanark, - - -	7	1	1	—	1	1	11	3	64	56
Motherwell and Wishaw, - -	42	51	6	—	2	15	116	13	346	2,054
Rutherglen, -	—	2	—	—	—	—	2	2	54	—
Dunbartonshire, -	—	1	—	—	—	1	2	2	42	—
Total, - - -	144	181	21	1	12	75	434	126	3,337	5,274



The following is a synopsis of the venereal diseases work since 1923 :—

	1923		1924		1925		1926		1927		1928		1929		1930	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<i>New Cases:—</i>	171	45	163	55	191	68	158	52	234	76	231	95	212	75	227	67
Syphilis, -	48	15	34	19	35	24	20	8	24	16	41	16	62	22	46	16
Gonorrhœa, -	68	10	76	21	108	32	78	27	126	39	106	43	83	28	107	25
Syphilis and Gonorrhœa, -	4	5	1	1	—	2	—	2	2	3	4	4	3	2	6	9
Soft Sore, -	9	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Others V.D., -	7	—	5	—	6	1	2	—	7	—	14	2	6	—	10	1
Others Non V.D.,	35	15	47	14	42	9	58	15	75	18	66	30	57	23	58	16
<i>Cases treated during Year :—</i>																
Syphilis, -	162	63	123	56	88	43	88	32	71	44	124	52	104	41	102	42
Gonorrhœa, -	100	13	99	22	137	48	106	42	157	48	160	55	120	39	142	39
Syphilis and Gonorrhœa, -	24	10	12	5	6	4	4	3	4	3	11	4	5	3	10	11
Soft Sore,	8	—	2	—	—	—	1	—	—	—	—	—	1	—	1	—
Others V.D., -	8	—	8	—	4	—	6	—	8	—	28	2	7	—	11	1
Others Non V.D.,	48	20	48	17	51	12	60	15	83	18	66	30	64	23	55	20
Outdoor Attend- ances, -	3270	599	3174	411	5531	1167	3070	747	4518	837	3673	608	2973	890	4056	1218
Indoor Cases, -	50	42	41	32	53	61	44	47	55	57	79	78	67	43	70	56
Indoor Days, -	1475	1264	1044	1110	1702	1846	1268	1399	1404	2380	1783	1786	1432	1331	1665	1672
Salvarsan Sub- stitute Injec- tions, -	1358	460	594	240	910	407	812	401	926	650	1024	379	1489	554	1716	655
No. of Operations	14	1	10	—	8	1	6	—	12	2	15	1	17	2	18	1
„ Wassermann,	424	131	269	91	172	64	165	69	198	127	294	81	257	117	284	89
„ Smears Spiro- chætes,	19	—	7	—	6	—	1	—	3	—	4	—	2	—	3	—
„ „ Gonococci.	171	35	138	53	126	71	51	39	144	86	115	77	83	63	116	89

Note.—Included under Salvarsan Substitute Injections are 1638 Bismuth Injections.

### Miscellaneous Cases Discharged during 1930.

	Rec.	Died.		Rec.	Died
Born in Hospital, ...	1	—	Ludwig's angina, ...	1	—
Bronchiectasis, ...	2	—	Malignant Lung, ...	—	2
Bronchitis, ...	2	—	Marasmus, ...	—	2
Cardiac disease, ...	1	2	Motor accident, ...	1	—
Catarrhal jaundice, ...	1	—	Naso-pharyngitis, ...	—	2
Cellulitis, ...	—	1	Nævus, ...	1	—
Cerebral hæmorrhage, ...	—	1	Negative, ...	9	—
Cerebral softening, ...	—	1	Others, ...	7	—
Cerebral tumour, ...	1	—	Pemphigus, ...	—	1
Chickenpox, ...	3	—	Peritonitis, ...	—	2
Chronic bronchitis and emphysema, ...	—	2	Pleurisy, ...	—	2
Chronic nephritis, ...	1	1	Poliomyelitis, ...	1	—
Colitis, ...	—	1	Pregnancy, ...	2	—
Conjunctivitis, ...	1	—	Pulmonary abscess, ...	—	1
Dermatitis, ...	8	1	Rheumatism, ...	11	—
Eczema, ...	1	—	Scabies, ...	19	—
Enteritis, ...	7	1	Septic adenitis, ...	6	—
Gangrene of Lung, ...	—	1	Septicæmia, ...	1	1
Impetigo, ...	8	—	Septic fingers, ...	8	—
Influenza, ...	1	—	Sore throat, ...	31	—
Intra-cranial tumour, ...	—	2	Tetanus, ...	—	1
Joint pains, ...	4	—	Tinea tonsurans, ...	6	—
Large tonsils, ...	15	—	Tonsillitis, ...	7	—
Laryngeal stenosis, ...	1	—	Trachoma, ...	1	—
			Wound of foot, ...	1	—

### Electrical Department.

During the year 905 cases were photographed. These were:— Chest, 785; chest and abdomen, 1; chest and skull, 1; chest and spine, 2; spine, 18; pelvis, 9; joints, 42; bones, 20; kidneys and bladder, 1; fractures, 11; skull, 6; bladder, 1; oesophagus, 1; foreign body, 3; barium enema, 1; barium meals, 3.

The sources from which the 905 cases came were: — County Hospital, Motherwell, 164; Bellshill Dispensary, 134; Blantyre Dispensary, 29; Cambuslang Dispensary, 75; Larkhall Dispensary, 9; Shotts Dispensary, 165; Bellshill Hospital, 2; Blantyre Hospital, 2; Lanark Hospital, 2; Calderbank House, 9; Lightburn Hospital, 13; Roadmeetings Hospital, 17; Omoa Poorhouse, 2; Longriggend Sanatorium, 95; Shotts Sanatorium, 86; Lower Ward, 17; Middle Ward (others), 36; Upper Ward, 12; Airdrie Burgh, 1; Hamilton Burgh, 17; Motherwell and Wishaw Burgh, 1; Doctors, 14; V.D. Centre, 3.

### Operations.

During the year the following operations were performed in the hospital :—

DISEASE.		OPERATION.	RECOVERED.	DIED.	TOTAL.
Tuberculosis	Glands	Scraping	12	1	13
	Tonsils	Tonsillectomy	1	—	1
	Elbow	Opening	1	—	1
Diphtheria	Laryngeal stenosis	Tracheotomy	11	6	17
		Intubation and tracheotomy	1	—	1
	Glands	Opening abscesses	4	—	4
	Carrier	Tonsillectomy	5	—	5
Scarlet Fever	Mastoiditis	Mastoidectomy	2	—	2
	Abscesses	Opening	10	—	10
Erysipelas	Abscesses	Opening	2	—	2
Puerperal Fever	Mastitis	Opening	7	—	7
	Pelvic abscess	Opening	—	1	1
	Peritonitis	Laparotomy	—	2	2
	Empyema	Resection of rib	1	—	1
	Abscess	Opening	1	—	1
	Panophthalmitis	Evisceration of eyeball	1	—	1
Venereal Diseases	Phimosis	Circumcision	10	—	10
	Abscesses	Opening	3	—	3
	Carbuncle	Opening	1	—	1
	Warts	Excision	1	—	1
	Stone in bladder	Lithotomy	1	—	1
	Epithelioma of penis	Amputation	1	—	1
	Stricture	Dilatation	1	—	1
Pneumonia	Empyema	Resection of rib	9	3	12
	Mastoiditis	Mastoidectomy	1	—	1
Measles	Glands	Opening abscess	3	2	5
Others	Abscesses	Opening	11	—	11
	Tonsils	Tonsillectomy	16	—	16
	Cellulitis	Incision	3	—	3
	Mastitis	Opening	9	—	9
	Empyema	Resection of rib	13	1	14
	Bronchiectasis	Lipiodol injection	2	—	2
	Epithelioma of tongue	Section for diagnosis	1	—	1
	Eclampsia	Tracheotomy	—	1	1
	Peritonitis	Laparotomy	—	1	1
	Lymphadenoma	Excision	1	—	1
	Nævus	Excision	1	—	1
	Ludwig's angina	Incision	2	—	2
			149	18	167

The following operations and consultations were undertaken by the consulting staff:—

Dr. MacLennan, Surgeon—Laparotomy, 1; supra-pubic lithotomy, 1; amputation of penis, 1; consultation, 1.

Dr. Adams, Otologist — Tonsillectomy, 17; mastoidectomy, 1; lipiodol injection, 1.

Dr. Cameron, Gynaecologist—Laparotomy, 2; consultation, 3.

Dr. Mortimer, Ophthalmologist — Evisceration of eyeball, 1; consultation, 9.

Dr. Harrington, Physician—Consultation, 4.

Dr. Brown, Dermatologist—Consultation, 4.

### The Staff.

On 31st December, 1930, the indoor staff comprised 1 physician-superintendent, 2 assistant medical officers, 1 matron, 12 sisters, 66 probationers, and 37 maids.

The outdoor staff consisted of 1 engineer, 3 firemen, 1 gardener, 5 assistant gardeners, 2 chauffeurs, 1 V.D. attendant, 1 X-ray attendant, 2 clerks, and 1 storekeeper.

The total staff numbered 136.

LECTURES.—From October till April lectures and demonstrations on elementary anatomy and physiology, hygiene, fevers, the theory and practice of nursing, and medical and surgical nursing, in accordance with the syllabus of the General Nursing Council, were given by the medical staff and matron. The course in cooking and dietetics was given by the Education Authority.

10 probationers passed the Final Examination and were granted the General Nursing Council Certificate for Fever Nursing, whilst 27 others completed the Preliminary Examination under this scheme. 20 probationers were awarded cookery certificates by the Education Authority.

STAFF ILLNESSES.—40 probationers and 28 maids were warded for the following illnesses:—Bursitis, 2; catarrhal jaundice, 1; conjunctivitis, 1; crushed finger, 1; diphtheria, 2; faint, 1; gland abscess, 1; gum boil, 1; headache, 1; hysteria, 1; influenza, 1; impetigo, 1; joint pains, 4; lumbago, 1; measles, 1; negative, 2; observation, 1; pleurisy, 1; positive swab, 1; quinsy, 1; rheumatism, 1; septic lip, 1; septic toe, 1; sore arm, 1; sore finger, 2; sore throat, 31; tonsillitis, 5.

The sick staff lost 952 working days.

INOCULATIONS.—38 probationers were vaccinated with T.A.B. vaccine against the enteric group of diseases.

IMMUNISATION.—129 of the staff had the Schick Test performed. Of 37 positives, 23 were immunised.

Of 110 Dick Tests, 7 reacted and 4 of these were immunised.

### AMBULANCE WORK.

	Admissions.	Discharges.	Tuberculosis.	Disinfections.	Others.	Total.
Patients, -	2,414	1,055	514	—	12	3,995
Journeys, -	2,019	273	176	70	42	2,580
Mileages, -	29,934	8,411	6,088	1,038	752	46,223

### STATISTICS.

TABLE I.—ADMISSIONS (AS NOTIFIED) AND DISCHARGES DURING 1930, WITH THE NUMBERS IN HOSPITAL AT THE BEGINNING AND END OF THE YEAR.

Disease.	In Hospital, 1st January, 1930.		Admitted.		Discharged.				Remaining in Hospital 31st Dec., 1930.	
	M.	F.	M.	F.	Recovered.		Died.		M.	F.
					M	F.	M	F.		
Scarlet Fever, - -	28	34	357	484	355	492	4	—	26	26
Diphtheria, - - -	18	20	311	388	298	378	17	11	14	19
Enteric Fever, - -	—	—	48	59	44	56	3	2	1	1
Erysipelas, - - -	2	4	22	42	23	40	—	4	1	2
Puerperal Fever, - -	—	6	—	132	—	105	—	24	—	9
Tuberculosis, - - -	—	1	39	41	28	32	8	9	3	1
Measles, - - - -	—	—	11	6	9	5	2	1	—	—
Whooping Cough, -	—	—	4	3	1	2	3	1	—	—
Venereal Disease, - -	2	7	66	55	64	56	2	2	2	4
Pneumonia, - - - -	19	8	240	146	184	106	50	36	25	12
Others, - - - - -	7	6	103	150	86	133	19	14	5	9
	76	86	1,201	1,506	1,092	1,405	108	104	77	83
	162		2,707		2,497		212		160	
	2,869				2,869					

TABLE II.—ADMISSIONS AND DISCHARGES IN EACH MONTH  
OF THE YEAR 1930.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Admitted, - -	239	219	231	201	229	252	218	182	207	248	238	243	2,707
Discharged—													
Recovered, - -	164	208	200	202	193	218	235	185	164	218	243	267	2,497
Died, - -	16	20	36	35	19	11	9	10	7	14	15	20	212

TABLE III.—AGE AND SEX OF PATIENTS DISCHARGED DURING THE  
YEAR 1930, WITH THE FATALITY RATE.

SCARLET FEVER.

Age.	Male.			Female.			Total.		
	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.
0-1,	1	—	—	2	—	—	3	—	—
-2,	8	1	11.1	6	—	—	14	1	6.6
-3,	15	—	—	20	—	—	35	—	—
-4,	43	1	2.2	37	—	—	80	1	1.2
-5,	34	—	—	34	1	2.8	68	1	1.4
-6,	33	—	—	49	—	—	82	—	—
-7,	26	—	—	55	—	—	81	—	—
-8,	32	—	—	40	—	—	72	—	—
-9,	22	—	—	50	—	—	72	—	—
-10,	19	—	—	29	—	—	48	—	—
-15,	46	—	—	72	—	—	118	—	—
-20,	10	—	—	30	—	—	40	—	—
Over 20,	17	—	—	27	—	—	44	—	—
Total, - -	306	2	0.6	451	1	0.2	757	3	0.3



TABLE III. (*contd.*)—DIPHTHERIA.

Age	Male.			Female.			Total.		
	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.
0-1,	1	2	66·6	1	1	50·0	2	3	60·0
-2,	8	4	33·3	3	1	25·0	11	5	31·2
-3,	10	—	—	9	—	—	19	—	—
-4,	17	1	5·5	9	—	—	26	1	3·7
-5,	17	—	—	24	—	—	41	—	—
-6,	17	—	—	27	1	3·5	44	1	2·2
-7,	12	—	—	16	1	5·8	28	1	3·4
-8,	16	2	11·1	22	1	4·3	38	3	7·3
-9,	9	1	10·0	16	1	5·8	25	2	7·4
-10,	7	—	—	14	1	6·6	21	1	4·5
-20,	26	1	3·7	46	2	4·1	72	3	4·0
Over 20,	4	1	20·0	22	—	—	26	1	3·7
Total,	144	12	7·6	209	9	4·1	353	21	5·6

TABLE III. (*contd.*)—ENTERIC FEVER.

Age.	Male.			Female.			Total.		
	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.
0-5.	5	1	16·6	3	—	—	8	1	11·1
-10,	7	—	—	9	—	—	16	—	—
-15,	5	—	—	8	—	—	13	—	—
-20,	6	—	—	14	1	6·6	20	1	4·7
-25,	4	—	—	2	—	—	6	—	—
-30,	—	—	—	2	—	—	2	—	—
-35,	1	—	—	2	—	—	3	—	—
-40,	—	—	—	1	—	—	1	—	—
-45,	1	—	—	—	—	—	1	—	—
-50,	—	—	—	—	—	—	—	—	—
Over 50,	—	—	—	1	—	—	1	—	—
Total,	29	1	3·3	42	1	2·3	71	2	2·7

TABLE IV.—THE STAGE OF THE DISEASE IN WHICH PATIENTS DISCHARGED IN 1930, WERE ADMITTED TO HOSPITAL.

Disease.	Days of 1st Week.							Week of Illness.				Total
	1	2	3	4	5	6	7	1st.	2nd.	3rd.	4th	
Scarlet Fever, - -	24	269	220	123	48	23	17	724	18	13	5	760
Diphtheria, - - -	24	94	77	66	39	20	18	338	32	3	1	374
Enteric Fever, - -	—	—	1	—	2	5	8	16	42	11	4	73
Pneumonia, - - -	3	23	56	55	39	43	12	231	48	10	5	294

TABLE V.—COMPLICATIONS OBSERVED IN PATIENTS DISCHARGED DURING 1930.

Scarlet Fever.	Suppurative Cervical Adenitis.	Non-Suppurative Cervical Adenitis.	Otitis Media Purulenta.	Rhinorrhoea.	Cardiac Complications.	Nephritis.	Arthritis.	Mastoiditis.	Pulmonary Complications.	Skin Conditions.
In 757 Recovered Cases,	11	70	37	67	10	13	8	2	2	19
In 3 Fatal Cases, -	—	—	1	1	—	—	—	—	1	—
760 Cases, - -	11	70	38	68	10	13	8	2	3	19
Percentage, - -	1·4	9·2	5·0	8·9	1·3	1·7	1·0	0·2	0·3	2·5

Diphtheria.	Adenitis.	Rhinitis.	Otitis Media.	Pneumonia.	Paralysis, all Forms.	Nephritis.	Albuminuria.	Serum Rashes.
In 353 Recovered Cases, - - -	8	2	3	1	15	2	2	25
In 21 Fatal Cases, - - -	—	1	—	6	4	—	—	1
In 374 Cases, - - - -	8	3	3	7	19	2	2	26
Percentage, - - - -	2·1	0·8	0·8	1·8	5·0	0·5	0·5	6·9

TABLE VI.—ADMISSIONS (AS NOTIFIED) SINCE OPENING OF HOSPITAL.

Year.	Enteric Fever.	Scarlet Fever.	Diphtheria.	Erysipelas.	Puerperal Fever.	Measles.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Cerebro-Spinal Fever.	Veneral Diseases.	Tinea.	Pneumonia.	Other Diseases	Total.
1897	19	70	—	1	—	9	—	—	—	—	—	—	5	104
1898	211	349	12	2	2	13	—	—	—	—	—	—	22	611
1899	235	571	21	5	—	1	—	—	—	—	—	—	16	849
1900	145	638	21	6	2	6	—	—	—	—	—	—	14	832
1901	291	621	31	7	—	—	—	—	—	—	—	—	14	964
1902	160	431	16	12	—	6	—	—	—	—	—	—	86	711
1903	174	187	22	14	1	2	—	—	—	—	—	—	17	417
1904	112	155	53	13	1	3	—	—	—	—	—	—	329	666
1905	300	114	66	12	4	1	23	—	—	—	—	—	93	613
1906	214	283	72	8	2	6	76	—	8	—	—	—	16	685
1907	99	317	283	4	9	2	106	—	94	—	—	—	16	930
1908	131	508	206	14	6	9	53	—	61	—	—	—	23	1,011
1909	109	834	164	11	10	3	1	—	10	—	—	—	9	1,151
1910	148	696	267	16	12	1	27	—	5	—	—	—	15	1,187
1911	122	670	248	16	12	4	—	—	7	—	67	—	47	1,193
1912	106	888	193	11	9	5	5	13	2	—	73	—	47	1,352
1913	126	838	246	12	6	2	16	37	7	2	61	—	15	1,368
1914	108	958	361	20	11	4	11	44	7	5	27	—	13	1,569
1915	115	750	286	25	12	4	18	65	29	4	26	—	30	1,364
1916	95	1,030	251	12	16	1	16	45	17	2	—	—	14	1,499
1917	92	642	191	17	13	22	3	120	26	99	4	—	26	1,255
1918	105	313	241	13	7	29	7	93	14	236	13	—	204	1,275
1919	118	595	280	16	28	24	11	87	24	111	6	—	155	1,455
1920	59	1,128	313	33	39	10	—	107	29	124	5	55	48	1,950
1921	107	1,047	250	38	54	1	—	156	12	123	19	51	50	1,908
1922	49	1,093	234	39	56	12	—	133	12	87	11	124	60	1,910
1923	61	931	254	47	56	7	11	122	9	91	5	87	67	1,748
1924	35	878	295	36	45	38	24	138	8	80	10	133	110	1,830
1925	25	922	285	44	44	5	24	84	2	106	11	123	96	1,771
1926	14	791	406	53	65	33	13	75	4	80	8	197	135	1,874
1927	9	452	419	47	88	11	7	62	5	105	16	259	193	1,673
1928	20	783	571	50	108	70	16	48	17	158	27	290	163	2,321
1929	11	732	643	60	111	4	8	28	10	111	14	347	214	2,293
1930	107	841	699	64	132	17	42	38	5	121	6	386	249	2,707
	3832	22056	7900	778	961	365	518	1495	424	1645	409	2052	2611	45,046



TABLE VII.—DISCHARGES SINCE OPENING OF HOSPITAL.

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Year.	Enteric Fever.		Scarlet Fever.		Diphtheria		Erysipelas.		Puerperal Fever.		Measles.		Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Cerebro-Spinal Fever.		Venereal Diseases.		Pneumonia.		Tinea.		Other Diseases.		TOTAL.	
	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.	Recd.	Died.
1897	11	1	43	2	—	—	1	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	2	1	58	5
1898	155	23	296	12	11	—	1	1	—	—	16	4	—	—	—	—	—	—	—	—	—	—	—	—	19	—	498	40
1899	201	24	536	20	15	4	3	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55	1	810	50
1900	134	14	592	15	16	2	5	—	—	1	7	—	—	—	—	—	—	—	—	—	—	—	—	—	31	3	785	35
1901	209	21	640	22	20	7	8	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	30	—	908	51
1902	183	27	438	20	14	2	10	1	—	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	84	—	735	50
1903	140	24	179	4	15	3	13	2	1	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	12	—	362	33
1904	88	13	171	7	44	9	12	—	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	347	5	664	35
1905	241	22	109	5	42	8	12	1	3	1	4	4	21	1	—	—	—	—	—	—	—	—	—	—	108	3	540	45
1906	192	19	241	4	44	11	4	2	—	1	6	—	62	13	—	—	1	5	—	—	—	—	—	—	65	2	615	57
1907	91	9	313	9	192	16	9	1	3	—	2	1	77	19	—	—	28	58	—	—	—	—	—	—	91	6	806	119
1908	107	13	425	8	170	17	12	3	3	2	9	2	55	10	—	—	21	30	—	—	—	—	—	—	56	6	858	91
1909	99	3	781	24	129	16	10	1	8	2	3	—	1	—	—	—	2	4	—	—	—	—	—	—	56	5	1,089	55
1910	137	6	878	16	226	22	13	1	5	8	7	—	28	—	—	—	1	—	—	—	—	—	—	—	52	10	1,127	62
1911	78	11	617	18	232	18	18	—	5	5	3	—	1	1	10	—	1	2	—	—	—	—	61	—	115	7	1,141	62
1912	58	10	748	22	136	15	11	—	3	5	6	—	2	2	4	—	—	1	—	—	—	—	76	—	226	5	1,270	60
1913	87	5	724	15	150	13	10	1	2	4	1	1	11	3	41	5	1	—	—	—	—	—	61	—	228	8	1,316	55
1914	75	10	833	27	228	38	15	4	9	2	2	1	5	4	37	4	1	1	—	—	—	—	27	—	205	11	1,437	102
1915	82	10	641	20	214	29	18	6	9	1	5	3	15	5	47	4	11	9	—	—	—	—	36	—	148	10	1,226	97
1916	82	10	1,017	23	214	27	13	—	8	7	1	—	6	5	63	2	3	5	—	—	—	—	—	—	84	5	1,491	84
1917	77	14	563	19	185	25	14	1	7	3	20	1	2	1	109	2	6	13	98	—	—	—	4	—	111	11	1,196	90
1918	42	15	269	11	135	18	11	4	3	3	29	7	7	2	83	10	1	4	231	—	—	—	13	—	334	35	1,158	109
1919	82	11	450	12	180	14	13	—	15	10	27	4	7	4	94	3	6	10	104	1	—	—	6	—	301	38	1,285	107
1920	39	3	985	10	191	19	24	4	25	11	16	3	—	—	103	7	1	13	124	—	33	17	5	—	226	18	1,772	105
1921	76	14	997	19	167	22	31	7	41	13	2	—	—	—	136	9	1	4	122	3	40	8	19	—	221	10	1,853	109
1922	29	3	979	18	147	31	31	5	43	14	22	6	—	—	132	10	—	4	66	4	79	25	11	—	249	12	1,788	132
1923	42	3	879	19	186	18	38	4	34	17	5	1	10	1	103	16	1	1	77	3	45	18	9	—	203	10	1,632	111
1924	21	1	818	16	189	18	27	1	35	13	39	11	20	1	111	22	—	10	54	7	65	25	10	—	295	23	1,684	148
1925	14	3	800	16	179	11	39	4	31	14	6	1	20	4	90	7	—	2	93	1	70	19	11	—	297	30	1,650	112
1926	13	2	707	7	237	13	41	7	33	20	39	2	10	3	60	10	1	3	61	2	114	31	8	—	377	35	1,701	135
1927	1	1	465	3	280	7	41	4	56	24	6	1	6	1	47	13	—	6	76	3	135	41	16	—	470	38	1,599	142
1928	12	2	661	5	353	20	40	4	73	31	78	5	13	3	41	15	1	7	114	2	144	52	27	—	577	32	2,134	178
1929	9	1	676	2	325	12	46	6	87	22	14	—	6	2	22	9	6	4	88	2	197	69	14	—	659	40	2,149	160
1930	71	2	757	3	353	21	51	4	92	25	24	8	42	3	17	20	1	4	97	3	217	77	6	—	769	42	2,497	212
Total	2,958	349	20,028	453	5,219	506	645	81	635	259	410	68	427	88	1,350	168	95	200	1,405	31	1,139	382	420	—	7,103	462	41,834	3,047
Fatality per cent.	10.5		2.2		8.8		10.1		28.9		14.2		17.0		11.0		67.7		2.1		25.1		—		6.1		6.7	





COUNTY OF LANARK

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LOWER WARD AREA.

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# REPORT

BY THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1930.

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Medical Officer of Health,	{	County Public Health Department, Hamilton.
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## STAFF

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### **Medical Officer of Health**

J. HUME PATTERSON, F.R.F.P.S.(Glas.), D.P.H.

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### **Assistant M.O.H. and Tuberculosis Officer**

G. MACLEOD MILLAR, M.B., Ch.B., D.P.H.

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### **Sanitary Inspector**

JOHN B. PHILIP.

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### **Assistant Sanitary Inspector**

THOMAS B. POLLOCK  
*(Certificated Meat Inspector).*

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### **Building, Housing, and Town Planning Inspector**

CECIL BERGMAN.

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**Nurse Health Visitors—3**

COUNTY OF LANARK.

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DISTRICT OF THE LOWER WARD.

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(Area, 21,166 Acres.)

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# Report by the Medical Officer of Health

## For the Year 1930.

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### VITAL STATISTICS.

The **Population** at the middle of the year 1930 has been estimated at 37,500. The population of the various Parishes is given in Table B.

The number of *inhabited* houses according to the Valuation Roll, amounts to 8,241, while there were 64 not inhabited.

**Statistical Tables.**—Table A shows the birth and death-rates per thousand of the population and the infantile deaths per thousand births for the decennial periods 1891-1900, 1901-10, 1911-20, 1921-30, as well as for the year 1930.

Table B shows the population, births, and deaths for the year in each parish and registration district, with the deaths classified according to cause.

Table C shows the deaths classified according to cause and age periods.

The **Births** registered in the District, after correction for transfers, amounted to 704—males, 431; females, 396—giving a birth-rate of 18·7 per thousand of the population, compared with 17·5 in the year 1929.

The number of *illegitimate* births registered in the District, after correction for transfers, amounted to 42—males, 23; females, 19—giving an illegitimate rate of 5·9 per hundred total births, compared with 4·4 in the year 1929.

The **Deaths** registered in the District, after correction for transfers, amounted to 367, giving a death-rate of 9·8 per thousand of the population, compared with 12·7 in the previous year.

*Deaths in Relation to Age.*—The deaths are here arranged in recognised age periods, and the percentage proportion of deaths at each age period is given.

Infant Period, -	Under 1 year,	40 deaths or 10·9 per cent.
Under School Age. 1-5 years,	16	„ 4·4 „
School Age, - - 5-15 „	10	„ 2·7 „
Adolescent, - - 15-25 „	18	„ 4·9 „
Early Mature Period, 25-45 „	40	„ 10·9 „
Late do. 45-65 „	109	„ 29·7 „
Post do. 65 years and upwards, -	134	„ 36·5 „

*Deaths due to Notifiable Infectious Disease.*—The deaths due to notifiable diseases numbered 65, made up as follows:—Tuberculosis, 27 (pulmonary, 23; abdominal, 2; and other forms, 2); pneumonia (all forms), 30; cerebro-spinal fever, 2; diphtheria, 3; enteric fever, 1; puerperal sepsis, 1; erysipelas, 1.

The deaths due to non-notifiable diseases amounted to 2—whooping-cough, 1; measles, 1.

*Respiratory Diseases.*—The deaths during the year numbered 75, which includes those from pulmonary tuberculosis, and the following statistics show the deaths and death-rates per thousand of the population of the various forms for the past year and for the four quinquennial periods 1911-15, 1916-20, 1921-25, and 1926-30.

Year.	Pneumonia.		Bronchitis.		Influenza.		Pulmonary Tuberculosis.		Other Respiratory Diseases.	
	Deaths.	Death Rate.	Deaths.	Death Rate.	Deaths.	Death Rate.	Deaths.	Death Rate.	Deaths.	Death Rate.
Average. 1911-15,	45	1·10	32	0·78	3	0·06	28	0·68	4	0·09
Average. 1916-20,	41	1·38	23	0·76	5	0·16	22	0·73	6	0·18
Average. 1921-25,	25	0·74	13	0·4	14	0·4	18	0·58	2	0·05
Average. 1926-30,	27	0·8	14	0·4	14	0·4	22	0·6	3	0·09
1930, -	30	0·8	16	0·4	5	0·13	23	0·61	1	0·02



TABLE B.—LOWER WARD.—Year 1930.—Population, Births, and Deaths in each Registration District, with Deaths classified according to cause.

[illegible]





TABLE C.—LOWER WARD.—Year 1920.—Deaths classified according to cause and age periods.

527B

CAUSE OF DEATH.	Registered in District.	Transferred from other Districts.	Transferred to other Districts.	Net Deaths.	NET DEATHS AT DIFFERENT AGE PERIODS.																			
					WEEKS.					MONTHS.					YEARS.									
					1	1-2	2-3	3-4	Total 4	1-3	3-6	6-9	9-12	Total 12	1-5	5-10	10-15	15-25	25-35	35-45	45-55	55-65	65-75	75 & over
Typhoid Fever, ...	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Smallpox, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Measles, ...	2	—	1	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Scarlet Fever, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Whooping-Cough, ...	2	—	1	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Diphtheria, ...	4	—	1	3	—	—	—	—	—	—	—	—	—	2	1	—	—	—	—	—	—	—	—	—
Influenza, ...	8	—	3	5	—	—	—	—	—	—	1	—	1	—	—	—	1	—	—	—	1	1	1	1
Cerebro-Spinal Fever, ...	3	—	1	2	—	—	—	—	—	1	—	—	1	—	—	1	—	—	—	—	—	—	—	—
Erysipelas, ...	1	1	1	1	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—
Encephalitis Lethargica, ...	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bacillary Dysentery, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malaria, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Dysentery, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis, ...	26	3	6	23	—	—	—	—	—	—	—	—	—	—	—	1	2	6	6	4	2	1	1	—
Meningeal „	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Abdominal „	1	1	—	2	—	—	—	—	—	—	1	—	1	1	—	—	—	—	—	—	—	—	—	—
Other „	3	1	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—
Septicæmia and Pyæmia, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rheumatic Fever, ...	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Malignant Diseases, ...	37	7	8	36	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	1	2	13	13	5
Meningitis (Simple), ...	6	—	—	6	—	—	—	—	2	—	—	—	—	2	2	1	—	1	—	—	—	—	—	—
Cerebral Hemorrhage, ...	45	12	8	49	2	—	—	—	2	—	—	—	—	2	—	—	1	—	1	—	3	14	14	14
Other Nervous Diseases, ...	19	2	12	9	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—
Organic Heart Diseases, ...	46	10	6	50	—	—	—	—	—	—	—	—	—	—	—	—	1	—	2	1	1	—	1	2
Other Circulatory Diseases, ...	5	2	3	4	—	—	—	—	—	—	—	—	—	—	1	—	—	1	3	4	8	11	16	6
Bronchitis, ...	14	4	2	16	—	—	—	—	—	—	2	—	—	2	—	—	—	—	—	—	—	1	1	2
Pneumonia (All Forms), ...	50	6	26	30	—	—	—	—	—	—	2	1	1	4	7	—	—	2	1	1	1	6	4	4
Other Respiratory Diseases, ...	1	—	—	1	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—
Diabetes, ...	3	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Pernicious Anæmia, ...	2	1	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—
Diseases of Ductless Glands, ...	3	3	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	2	—
Appendicitis, Typhilitis, ...	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2	2	—	—	—
Liver Diseases (not malignant), ...	4	1	—	5	—	1	—	—	1	—	—	—	—	1	—	—	—	1	—	—	—	—	—	—
Other Digestive Diseases, ...	5	6	—	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	1
Nephritis, Bright's Disease, ...	6	1	1	6	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	4	3	1	—	2
Dis. of Genito-Urinary System, ...	1	5	—	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	3	2	—	—	—
Dis. of Female Genital Organs, ...	1	1	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	2	—	—	1
Puerperal Sepsis, ...	2	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—
Dis. and Acc. of Pregnancy, &c., ...	—	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—
Congenital Hydrocephalus, ...	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—
Congenital Heart, ...	1	—	—	1	1	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Congenital Malformations, ...	1	—	—	1	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—
Infantile Convulsions, ...	3	1	—	4	1	—	—	—	1	—	—	2	—	3	1	—	—	—	—	—	—	—	—	—
Diarrhoea (under 2 years), ...	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Premature Birth, ...	3	5	—	8	6	1	—	—	7	1	—	—	—	8	—	—	—	—	—	—	—	—	—	—
Injury at Birth, ...	—	1	—	1	1	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Atrophy, Debility, & Marasmus, ...	5	1	—	6	1	1	2	1	5	—	1	—	—	6	—	—	—	—	—	—	—	—	—	—
Atelectasis, ...	1	—	—	1	1	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Suffocation—Overlying, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rickets, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Diseases of early Infancy, ...	1	—	—	1	1	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—
Syphilis, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Violence, ...	20	9	10	19	—	—	—	—	—	—	—	—	—	—	—	—	1	3	2	1	4	5	2	1
Suicide, ...	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Defined Diseases, ...	25	8	3	30	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ill-Defined Diseases, ...	4	—	—	4	—	—	1	—	1	—	—	—	—	1	—	—	—	—	—	—	2	1	1	25
TOTAL, ..	370	98	101	367	14	3	3	1	21	4	7	6	2	40	16	4	6	18	19	21	38	71	65	69





*Influenza.*—In accordance with the method of classification adopted by the Registrar-General since 1st January, 1921, 5 deaths were ascribed to influenza. The diseases complicating these deaths were as follows:—Pneumonia, 1; meningitis, 1; myocarditis, 1; disease of gall bladder, 1; senility, 1.

*Malignant Diseases.*—Deaths falling under this heading numbered 36—males, 19; females, 17. The type of disease was—carcinoma, 35; and other forms, 1. The disease affected some portion of the gastro-intestinal tract in 24 cases; the genito-urinary tract, 4 cases; breast, 3 cases; respiratory, 1 case; others, 4 cases.

TABLE A.—BIRTH-RATES AND DEATH-RATES PER 1000 OF THE POPULATION.  
INFANTILE DEATHS PER 1000 BIRTHS.

Year.	Births.	Birth-rate.	Net Deaths.	Death-rate.	Infants Deaths.	Under 1 year Death-rate.
Average. 1891 to 1900	1,200	32·9	577	15·9	150	125·2
Average. 1901 to 1910	1,576	33·4	683	14·4	174	110·8
Average. 1911 to 1920	869	24·1	428	12·2	88	98·2
Average. 1921 to 1930	633	19·63	346	10·6	48	75·8
Year. 1930	704	18·7	367	9·8	40	56·8

\*By the Glasgow Boundaries Act, 1912, an area of 1,706 acres, with a population of 28,490 was annexed by the City of Glasgow, which affected the statistics from 1st January, 1913, and again by the Glasgow Boundaries Act, 1926, a further annexation of 3,542 acres with a population of 4,350 took place which affected the statistics for the year 1926.

## PREVALENCE OF INFECTIOUS DISEASE.

The diseases included under this heading are classified in relation to notification, and are divided into two groups. Group I included diseases which are compulsorily notifiable (*a*) under the Notification Act; (*b*) by adoption under the Notification Act; and (*c*) by order of the Scottish Board of Health; and Group II, not compulsorily notifiable diseases.

The diseases included in these groups are as follows:—

### GROUP I.

( <i>a</i> )	( <i>b</i> )	( <i>c</i> )
Smallpox.	August, 1906.	1st August, 1912.
Diphtheria.	Cerebro-spinal Meningitis.	Pulmonary Tuberculosis.
Scarlet Fever.	24th October, 1912.	1st July, 1914.
Typhus Fever.	Acute Poliomyelitis.	All forms of Tuberculosis
Enteric Fever.	Tetanus.	1st November, 1918.
Puerperal Fever.	Anthrax.	Ophthalmia Neonatorum.
Erysipelas.	Glanders.	1st August, 1919.
	Actinomycosis.	Malaria.
		Dysentery.
		Trench Fever.
		Acute Primary Pneumonia.
		Acute Influenzal Pneumonia.
		26th December, 1924.
		Infective Jaundice.
		21st December, 1925.
		Infantile Paralysis.
		Polio-encephalitis.
		Encephalitis Lethargica.
		25th March, 1927.
		Chickenpox.
		1st October, 1929.
		Puerperal Pyrexia.

### GROUP II.

Measles.	Mumps.	Ringworm.
German Measles.	Whooping Cough.	Scabies.

Table D shows the number of cases of notifiable infectious disease occurring in each parish during the year, and in the following paragraphs the prevalence and distribution of each disease is summarised.

All the outbreaks were carefully inquired into, and the usual recognised methods of investigation, isolation, and disinfection were carried out to control the spread of the disease.

**TABLE D.—Number of Cases of Notifiable Infectious Diseases recognised in each Parish during 1930.**

Parish.	Diphtheria.	Scarlet Fever.	Puerperal Fever.	Puerperal Pyrexia	Erysipelas.	Ophthalmia Neonatorum.	Acute Primary Pneumonia.	Influenzal Pneumonia.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Encephalitis Lethargica.	Cerebro-spinal Meningitis.	Chickenpox.	Enteric Fever.	Acute Anterior Poliomyelitis.	Totals.
Glasgow (late Barony), ...	15	23	1	—	4	4	17	1	11	3	—	2	14	1	—	96
Cadder, ...	82	115	4	8	19	3	51	10	32	18	1	3	200	2	1	549
Rutherglen, ...	24	49	1	3	7	3	34	—	12	4	—	1	39	1	—	178
Carmunnoch, ...	3	4	—	—	—	—	—	—	1	—	—	—	10	—	—	18
	124	191	6	11	30	10	102	11	56	25	1	6	263	4	1	841

The number of visits of enquiry made by the Sanitary Inspectors amounted to 801; intimations to parents and school teachers, 1,303; and 392 cases were removed to hospital. 323 apartments and 317 lots of bedding and clothing were disinfected; while 7 lots of bed and bedding were removed for disinfection and 3 lots for destruction.

In addition to the visits to mothers and babies and to tuberculous patients, which constitute their principal duties, the Nurse Health Visitors also visit cases of certain infectious disease, both notifiable and non-notifiable, and give advice in methods of nursing and carrying out of treatment. During the year 667 such visits were made, and the following summary shows the more important diseases for which these visits were made:—

Pneumonia, . . . . .	115	Measles, . . . . .	220
Ophthalmia Neonatorum, . . . . .	45	Whooping Cough, . . . . .	122
Chickenpox, . . . . .	10	Mumps, . . . . .	52
Puerperal Fever, . . . . .	10	Scabies, . . . . .	51
Puerperal Pyrexia, . . . . .	4	Impetigo, . . . . .	29
Eczema, . . . . .	2	Ringworm, . . . . .	1
Others, . . . . .	-	-	6

### Smallpox.

No cases were notified during the year.

*Vaccination (Scotland) Act, 1907.*—The returns received from Registrars showed that the number of statutory declarations of conscientious objection to vaccination amounted to 173, compared

with 140 in the year 1929. Of this number, 53 were in the registration district of Cadder East; 43 in Rutherglen; 36 in Shettleston; 34 in Cadder West; 4 in Garngadhill; 2 in Carmunnock; and 1 in Possilpark. The proportion of declarations for the whole district was 24 per cent. of the total births.

### Diphtheria.

The following tabular statement shows the cases, deaths, and respective rates in quinquennial periods since 1892 and for the year 1930:—

Year.	Numbers.		Rates.		
	Cases.	Deaths.	Deaths per	Cases per	Deaths per
			100 Cases.	1000 Population.	10,000 Population.
Annual Average—					
1892-95,	25·2	8·2	32·6	0·75	2·47
1896-1900,	34·2	7·0	20·4	0·84	1·73
1901-05,	48·6	6·6	13·5	1·1	1·5
1906-10,	135·6	9·8	7·2	2·6	1·9
1911-15,	92·0	8·0	8·6	2·3	1·9
1916-20,	37·0	4·0	9·7	1·2	1·2
1921-25,	47·4	3·0	6·3	1·4	0·9
1926-30,	84	3	3·6	2·48	0·9
Year 1930,	124	3	2·4	3·3	0·8

119 of the cases notified were removed to hospital, 5 being isolated and nursed at home.

In three instances the diagnosis was altered, as follows:—Laryngitis, 2; quinsy, 1. Four cases suffered also from scarlet fever; 1 from mumps; and 1 from measles.

The monthly distribution throughout the year was as follows:—

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
12	9	14	12	11	8	12	4	2	19	10	11

The age incidence of the cases was as follows:—

Ages—	·1	1·5	5·15	15·25	25·45	45·65
Cases,	1	37	53	20	11	2

Of the cases admitted hospital, 9 had received anti-toxin before admission.

Of the three cases who died, 1 was admitted on second day of disease, 1 on third day, and 1 on the sixth day.

### Scarlet Fever.

The following tabular statement shows the cases, deaths, and respective rates in quinquennial periods since 1892 and for the year 1930 :—

Year.	Numbers.		Rates.				
	Cases.	Deaths.	Deaths per 100 cases.	Cases per 1000	Deaths per 10,000		
				Population.	Population.		
Annual Average—							
1892-95,	-	-	189	9	4.6	5.6	2.6
1896-1900,	-	-	245	10	4.0	6.0	2.4
1901-05,	-	-	136	4	2.9	3.1	0.9
1906-10,	-	-	224	6	2.7	4.4	1.2
1911-15,	-	-	240	7	2.8	5.9	1.6
1916-20,	-	-	63	1	1.2	2.1	0.2
1921-25,	-	-	87.2	0.8	0.8	2.7	0.1
1926-30,	-	-	111	1	1.4	3.21	0.3
1930,	-	-	191	0	0	5.0	0

Of the 191 cases notified, 159 were removed to hospital.

In two cases the diagnosis was altered, one to rhinitis and one to tonsillitis. Four cases suffered also from diphtheria.

The monthly distribution of the cases was as follows :—

Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
9	24	28	18	13	21	8	7	9	19	19	16

The age incidence of the cases was as follows :—

Ages.	under 1	1-5	5-15	15-25	25-45	45-65
Cases,	-	3	42	113	19	12

### Enteric Fever.

The following tabular statement shows the cases, deaths, and respective rates in quinquennial periods since 1892 and for the year 1930 :—

Year.	Numbers.		Rates.		
	Cases.	Deaths.	Deaths per	Cases per	Deaths per
			100 Cases.	1,000 Population.	10,000 Population.
Annual Average—					
1892-95,	48	7	15.5	1.4	2.2
1896-1900,	47	6	13.0	1.1	1.5
1901-05,	40	5	13.3	0.9	1.2
1906-10,	40	3	8.4	0.8	0.6
1911-15,	10	2	19.2	0.2	0.5
1916-20,	5	0.2	3.8	0.1	0.06
1921-25,	1.8	0.2	10.0	0.05	0.06
1926-30,	2.2	0.4	10.0	0.05	0.01
1930,	4	1	25.0	0.10	0.2



### Cerebro-Spinal Meningitis.

Six cases were notified, 5 being removed to hospital. 2 cases died, 1 in hospital and 1 at home. In 3 instances the diagnosis was altered to broncho-pneumonia, encephalitis, and malnutrition. In the remaining case no abnormality was detected.

### Erysipelas.

Cases, 30. Deaths, 1. Removed to hospital, 10.

### Pneumonia.

Cases, 113. Deaths, 30.

The cases were thus described in the notifications:—Broncho-pneumonia, 27; lobar-pneumonia, 27; influenzal-pneumonia, 11; primary pneumonia, 9; pneumonia (unqualified), 39.

The age and sex incidence of the cases were as follows:—

	Ages—1	1-5	5-15	15-25	25-45	45-65	65 and upwards.
Males, -	8	23	14	13	11	6	4
Females, -	5	14	6	—	2	2	5

30 cases occurred during the first quarter of the year; 28 in the second; 10 in the third; and 45 in the fourth. The greatest number notified in one month was 27 in January.

With the exception of patients whose home conditions were such as to ensure suitable treatment, the cases were visited by the Nurse Health Visitors, and nursing advice and assistance given. In all 115 visits were made to 105 cases. 52 cases were removed to hospital, compared with 47 in the previous year.

### Encephalitis Lethargica.

One case was notified and removed to hospital, where the diagnosis was revised to constipation.

### Acute Anterior Poliomyelitis.

One case was notified from the Parish of Cadder.

### Dysentery.

No cases were notified during the year.

### Chickenpox.

During the year 263 cases were notified, 200 being from the Parish of Cadder, 39 from Rutherglen, 14 from Glasgow Parish, and 10 from Carmunnock.

### Non-notifiable Diseases.

The sources of information available to the department regarding the prevalence of measles, whooping-cough, mumps, ringworm, &c., are as follows:—(1) Information sent by schoolmaster for the purpose of certification of scholars absent on account of infectious disease; (2) applications made by school Authorities for closure of schools when the attendance is interfered with by epidemic prevalence; (3) information obtained by the Nurse Health Visitors; and (4) the returns of deaths received from the local Registrars. The deaths due to the various non-notifiable diseases are shown in Table B.

The following tabular statement shows the deaths registered from measles and whooping-cough and the deaths per 10,000 of the population in quinquennial periods since 1892 and for the year 1930:—

Annual Average—	Measles.		Whooping Cough.	
	Deaths.	Death rate per 10,000 Population.	Deaths	Death-rate per 10,000 Population.
1892-95,	17	5·2	9	2·8
1896-1900,	25	6·2	21	5·3
1901-05,	21	4·8	28	6·3
1906-10,	23	4·5	27	5·4
1911-15,	12	3·0	14	3·4
1916-20,	6	2·0	8	2·6
1921-25,	4·5	1·3	5·6	1·7
1926-30,	2·8	·8	5·4	1·63
Year 1930,	1	·26	1	0·26

*Measles.*—The number of cases brought to the notice of the Department from various sources was 293, and 3 cases were removed to hospital. 220 visits were made by the Nurse Health Visitors, who gave advice as to the nursing of the disease and preventing the spread of infection.

*Whooping-Cough.*—The number of cases brought to the notice of the Public Health Department was 107, and 1 case was removed to hospital. 122 visits were made by the Nurse Health Visitors. In the case removed to hospital the diagnosis was altered to pericarditis.

*Other Diseases.*—The following cases of non-notifiable diseases were also treated in hospital:—Scabies, 4; enteritis, 1; eczema, 1; varicose ulcer, 1.

### Schools.

No certificates for the closure of schools were given during the year. In some instances children were excluded from school and all necessary steps taken to prevent the spread of infection.

### Anthrax.

One outbreak of this disease in cattle was reported during the year from the Parish of Cadder. None of the persons in contact with the diseased animals was infected.

### Venereal Diseases.

*Bacteriological Examinations.*—The following table gives a list of specimens sent to the County Bacteriological Laboratory.

	Medical Practitioners.	Sent by			Result	
		Coathill Clinic.	Motherwell Hospital.	Lightburn Hospital.	+	-
Blood,	22	3	2	2	6	23
Swab,	1	—	—	—	—	1
Smear,	8	—	—	—	—	8
C. S. Fluid,	1	—	—	1	1	1
	32	3	2	3	7	33

### Hospitals.

The Annual Report by the Physician-Superintendent of Lightburn Joint Hospital forms an Appendix to this report.

In addition to the cases treated in Lightburn Joint Hospital, the following cases were treated in other institutions:—

Scarlet Fever,	-	-	-	2 cases in Belvidere Hospital.
				2 „ Ruchill „
Diphtheria,	-	-	-	2 cases in Motherwell Hospital.
				1 case in Ruchill Hospital.
Pneumonia,	-	-	-	2 cases in Glasgow Royal Infirmary.
Erysipelas,	-	-	-	1 case in Motherwell Hospital.
				1 „ Ruchill Hospital.
Puerperal Fever and Pyrexia,	-	-	-	{ 3 cases in Motherwell Hospital.
				{ (transferred from Bellshill Hospital).
Ophthalmia Neonatorum,	-			2 cases in Motherwell Hospital.
Ophthalmia,	-	-	-	1 case „ „

## TUBERCULOSIS.

The provision of institutional treatment for tuberculosis was commenced in 1905, and notification was then arranged for on a voluntary basis. In the year 1907 pulmonary tuberculosis was made compulsorily notifiable in this district under the Notification Act, but was not made compulsorily notifiable throughout Scotland until 1st August, 1912. On 1st July, 1914, non-pulmonary tuberculosis was also made compulsorily notifiable throughout Scotland.

The following tabular statement shows the deaths from tuberculosis since the commencement of County administration, but, owing to the annexations which have taken place, it is not desirable to place too much reliance on these figures for the purpose of comparison, as the composition of the population, especially the proportion of urban to rural, has changed considerably:—

Annual Average—	Pulmonary.			Non-Pulmonary.		
	Cases Notified.	Deaths Registered.	Death-rate per 10,000 Population.	Cases Notified.	Deaths Registered.	Death-rate per 10,000 Population.
1891-95,	—	42	12·8	—	29	7·1
1896-1900,	—	47	11·7	—	29	6·8
1901-05,	—	54	12·4	—	33	7·2
1906-10,	65	57	11·3	—	41	7·6
1911-15,	59	28	6·8	—	24	5·8
1916-20,	42	22	7·3	31	11	3·5
1921-25,	45·5	18·4	5·8	33·8	8	2·5
1926-30,	50·2	22·5	6·7	23·4	6	1·8
Year 1930,	56	23	6·1	25	4	1·0

### PULMONARY.

*Mortality.*—The deaths from pulmonary tuberculosis amounted to 23, giving a death-rate of ·61 per thousand of the population. The deaths will be found, classified according to parish, in Table B, and the age incidence will be found in Table C.

*Deaths in Relation to Notification.*—Of the 23 deaths registered, 16 were notified cases. 2 of the deaths not notified occurred outwith the Lower Ward District and were transferred in. 2 deaths registered as pulmonary tuberculosis were notified as puerperal fever and pneumonia respectively. In addition, one death of a case notified as pulmonary tuberculosis was ascribed to fracture of leg and bronchitis, while two deaths were ascribed to pulmonary tuberculosis who had

been notified as suffering from puerperal fever and pneumonia respectively. In three instances deaths of notified cases of pulmonary tuberculosis were transferred out. In all there were 20 deaths of notified cases.

Of the notified cases, 1 was notified in 1920, 2 in 1926, 2 in 1928, 4 in 1929, and 11 in 1930. 8 of the cases died within three months of notification, viz., 2 within a week, 1 within a month, 4 within three months, while 1 was notified after death.

*Notification.*—The number of cases notified amounted to 56, and were classified as follows:—Definite (sputum not examined), 14; definite (sputum positive), 18; definite (sputum negative), 9; suspect for observation, 8; death before notification, 1; not visited, 3; in hospital when visited, 3.

The occupations of the cases notified were:—Housewives, 10; scholars, 6; clerks, 6; shop assistants, 4; labourers, 3; engineers, 2; nurse, 1; miner, 1; blacksmith, 1; chemical worker, 1; laundry worker, 1; master of works, 1; asylum attendant, 1; brickworker, 1; wire weaver, 1; dairyworker, 1; clerkess, 1; french polisher, 1; confectionery worker, 1; carter, 1; salesman, 1; cabinetworker, 1; ticket writer, 1; insurance agent, 1; moulder, 1; no occupation, 2; not known, 1; institution, 3.

The age incidence of the cases notified was as follows:—

Ages,	1-5	5-15	15-25	25-45	45-65	65 & upwards	Total.
Cases,	2	6	16	22	7	3	56

*Housing Conditions of the Cases Notified.*—3 of the cases lived in houses of one apartment; 17 in two-apartment houses; 11 in three-apartment houses; 15 in four-apartment houses; 6 in houses of more than four apartments; and 4 in institutions.

*Total Cases on Record.*—At the beginning of the year there were 112 cases on the register, and during the year 56 new cases were notified, making a total of 168 cases dealt with. Of the total dealt with, 20 died (19 from pulmonary tuberculosis and one from other causes); 14 left the district; in 4 cases the names were removed from the register as the disease was arrested; one was transferred to the non-pulmonary list; and 7 names were removed from the register on proving to be non-tubercular. At the close of the year 122 cases remained on the register.

*Arrest or Cure of the Disease.*—The cases whose names were removed from the register for this reason were notified as follows:—1 each in 1921, 1924, 1925, and 1928.

*Proved Non-Tubercular.*—Of the 7 cases whose names were removed from the register for this reason, 1 was notified in 1928, 5 in 1929, and 1 in 1930.

#### NON-PULMONARY.

*Mortality.*—The deaths from non-pulmonary tuberculosis amounted to 4 (2 abdominal and 2 other tuberculosis), giving a death-rate of 10 per thousand of the population. The deaths will be found, classified according to parish, in Table B, and the age incidence will be found in Table C.

Of the 4 deaths registered, 2 were not notified cases. The not notified cases died outwith the area and were transferred in.

*Notifications.*—The number of cases notified amounted to 25, and were classified as follows:—Glandular, 7; osseous or arthritic, 7; abdominal, 6; meningeal, 2; others, 3.

The age incidence of the cases notified was as follows:—

Ages.		Under 1	1-5	5-15	15-25	25-45	Total
Glandular,	-	—	—	4	3	—	7
Abdominal,	-	2	—	2	2	—	6
Meningeal,	-	—	—	—	1	1	2
Osseous or Arthritic,	—	—	2	—	3	2	7
Other Forms,		—	—	1	—	2	3

*Total cases on record.*—At the beginning of the year there were 84 cases on the register, and during the year 25 new cases were notified, making a total of 109 cases dealt with. Of the total cases dealt with, 5 died; 4 left the district; in 5 cases the names were removed from the register as the disease was cured, healed, or permanently arrested; while in 5 cases the names were removed on account of the conditions proving non-tubercular.

At the close of the year 90 cases remained on the register.



*Arrest or Cure of the Disease.*—The 5 cases removed from the register were notified in 1920, 1921, 1923, 1924, and 1925.

*Domiciliary Treatment.*—Cases of Tuberculosis suitable for treatment at home are supervised by the Tuberculosis Officer and Nurse Health Visitors. The visits made by the latter during the year numbered 1,253—709 to pulmonary and 544 to non-pulmonary cases. In addition, a considerable number of patients attended the Child Welfare Centres and the Public Health Offices in Glasgow, while the attendances at Cambuslang Dispensary were as follows:—

Cases, 295. Consultations, 172.

One shelter was in use throughout the year.

Nine cases received nourishment in the form of milk and eggs. Malt, cod-liver oil and emulsion, virol, and chemical food were also supplied to suitable cases.

### Sanatoria.

Pavilion VI at Lightburn Joint-Hospital was set aside up till 11th October, when patients were transferred to other institutions for the treatment of tuberculosis cases from the Lower Ward area. In addition to this, cases were also treated at the various Middle Ward sanatoria, and the following table shows the number of patients in the various institutions during the year:—

P. = Pulmonary.		N.P. = Non-Pulmonary.				
Institution.		Remaining end of 1929.	Admitted during 1930.	Discharged during 1930.	Died during 1930.	Remaining end of 1930.
Lightburn,	{P.	7	23	22	7	1
	{N.P.	4	10	12	2	—
Stonehouse,	N.P.	1	2	—	—	3
Hairmyres,	P.	—	6	1	—	5
Dalserf,	N.P.	1	—	—	—	1
Uppertown,	P.	—	6	—	1	5
Shotts,	P.	—	2	—	—	2
		13	49	35	10	17

Includes 7 transfers from Lightburn to other Institutions.

The duration of residence in hospital of the cases dismissed in 1930 was as follows:—

Months,	1 Under 1	2 1-3	3 3-6	6-9	9-12	12 and over
Pulmonary, - -	5	7	15	2	1	1
Non-Pulmonary, -	4	1	6	1	1	1
1. Includes 3 transfers from Lightburn.						
2. " "	1	"	"	"		
3. " "	3	"	"	"		

### Refractories Industries (Silcosis) Scheme, 1919.

No examinations under the above scheme were made during the year.

### MATERNITY AND CHILD WELFARE.

The number of births registered, corrected for transfers, was 704, the birth-rate for the year being 18·7 per thousand of the population. Of the 704, 42 were illegitimate.

*Notifications.*—Of the 704 births registered, 647 were notified, and, in addition, 29 still-births were reported.

Table E shows the births registered; births notified; visits made by the Nurse Health Visitors; the attendant at confinement as ascertained at the first visit; infant deaths registered; and the infantile death-rate, the information being tabulated according to parishes.

*Infantile Mortality.*—The deaths of infants under one year numbered 40, giving an infant mortality rate of 56·8 per thousand births, as compared with 67·2 in the previous year. Of the 40 deaths, 18, or 45 per cent., were due to developmental causes, which include prematurity, atrophy, &c. Of these 18 deaths, 14, or 77 per cent., occurred during the first four weeks of life.

*Maternal Deaths.*—Five deaths occurred in relation to pregnancy and confinement, the causes of death being—

- (1) Ruptured ectopic gestation; internal hæmorrhage.
- (2) Adherent placenta; post-partum hæmorrhage; obstretic shock.
- (3) Cerebral abscess.
- (4) Epilepsy.
- (5) Puerperal Septicæmia.

The usual investigations were made in these cases.

TABLE E.—Lower Ward District.

	Births.		Number of Visits.			Attendant at Confinement.			Infant Deaths.					
	Registered.	Notified Alive.	Still-born.	First.	Subsequent.	Total.	Doctor.	Midwife.	Handy-woman.	Institu- tion.	Unknown.	Registered.	Births.	Rate per 1000 Births.
Glasgow (late Barony),	149	125	2	80	662	740	30	35	—	14	1	6	8.5	
Cadder, ...	363	346	21	354	2,659	2,994	203	90	4	56	1	20	28.4	
Rutherglen,	182	167	6	109	1,190	1,297	41	55	—	12	1	13	18.5	
Carmunnock,	10	9	—	7	90	97	6	1	—	—	—	1	1.4	
	704	647	29	550	4,601	5,128	280	181	4	82	3	40	56.8	

Table F shows the infant deaths arranged according to the classification requested by the Board of Health :—

Table F.

	AGE PERIODS.					
	Weeks.		Months.			Total.
	- 1	1-4	1-3	3-6	6-12	
Chickenpox, - - -	—	—	—	—	—	—
Measles, - - -	—	—	—	—	—	—
Scarlet Fever, - - -	—	—	—	—	—	—
Whooping-Cough, - - -	—	—	—	—	—	—
Diphtheria and Croup, - - -	—	—	—	—	—	—
Erysipelas, - - -	—	—	—	—	—	—
Mumps, - - -	—	—	—	—	—	—
Tuberculous Disease, - - -	—	—	—	—	1	1
Meningitis (not tuberculous), - - -	—	—	2	—	—	2
Congenital Hydrocephalus, - 1	—	—	—	—	1	2
Convulsions, - - -	1	—	—	—	2	3
Pneumonia (all forms), - - -	—	—	—	2	2	4
Influenza, - - -	—	—	—	—	1	1
Cerebro-spinal Meningitis, - - -	—	—	—	1	—	1
Bronchitis, - - -	—	—	—	2	—	2
Diarrhœa and Enteritis, - - -	—	—	—	—	—	—
Other Digestive Diseases, - - -	—	—	—	—	—	—
Diseases of Ductless Glands, - - -	—	—	—	—	—	—
Congenital Malformations, - - -	—	—	—	1	—	1
Organic Heart Disease, - - -	—	—	—	—	—	—
Premature Birth, - - -	6	1	1	—	—	8
Atrophy, Debility, and Marasmus, 1	4	—	—	1	—	6
Atelectasis, - - -	1	—	—	—	—	1
Injury at Birth, - - -	1	—	—	—	—	1
Suffocation (overlying), - - -	—	—	—	—	—	—
Syphilis, - - -	—	—	—	—	—	—
All other causes, - - -	3	2	1	—	1	7
	14	7	4	7	8	40

*Puerperal Fever.*—6 cases were notified and were removed to hospital. In one instance a midwife was in attendance at the birth and 2 cases occurred in institutions. 2 died, and one is referred to under the heading of maternal deaths, while in the other instance the diagnosis was altered to pulmonary tuberculosis.

*Puerperal Pyrexia.*—11 cases were notified, and 5 were removed to hospital. In 2 instances the diagnosis was altered to puerperal sepsis. Of the 11 cases notified, 3 were attended by certified midwives.

*Still-births.*—Special visits of enquiry were made, and the records of 23 cases showed that the following conditions were noted as the probable cause:—

(a) *Affecting the Mother.*—Contracted pelvis, 2; difficult labour, 1; prolonged labour, 1; ante-partum hæmorrhage, 1; toxæmia of pregnancy, 1; injury, 1; unknown, 9.

(b) *Affecting the Child.*—Prematurity, 4; anencephalic, 2; prolapse of cord, 1.

In 12 instances the fœtus was stated to be normal in appearance; in 4 macerated; in 2 anencephalic; and in 5 the condition was unknown.

In 14 instances the confinement was normal; in 1 difficult; in 5 forceps were used; in 2 induction of labour was performed; in 1 instance information as to the nature of confinement could not be obtained.

One of the mothers was employed as a shopgirl, while the remainder were employed at household duties only.

In 6 cases the still-birth was the first pregnancy; in 3 the second; in 5 the fourth; in 2 the fifth; in 3 the sixth; in 1 the seventh; in 1 the eighth; and in 2 the eleventh.

In 3 instances a doctor alone was present at the confinement; in 1 a midwife alone; in 7 a doctor and midwife; in 4 a doctor and handywoman; and in 8 the confinement took place in an institution.

*Ophthalmia Neonatorum.*—10 cases were notified, 5 being notified by doctors; 4 by midwives; and 1 by health visitor. In 3 instances a doctor attended at the confinement; in 7 a midwife; 4 cases were removed to hospital and 1 was later re-admitted for further treatment. In 2 instances the result of swab was positive for gonococci.

*Necessitous Cases.*—An allowance of milk was granted to nursing and expectant mothers and to children who were ill-nourished and in necessitous circumstances. All applicants are seen by the Medical Officer, the assistance granted being governed by the following standards:—Where the weekly income per adult (children under

14 years of age counting as half adults) was less than 7s., full assistance was given; if from 7s. to 8s. 6d., half assistance; if over 8s. 6d., no assistance.

Forms showing the home and financial circumstances of the applicants are in use. These have proved of great assistance in checking the statements.

Throughout the year 26 families were granted assistance at an estimated cost of £18 18s. 8d., compared with 53 at an estimated cost of £51 2s. 5d. last year.

*Child Welfare Centres.*—It is again a pleasure to acknowledge the voluntary assistance of the lady members of the two Child Welfare Associations, and to know that their work is still being carried on:—

	Year.	Mothers.	Children.	Consulta- tions.	Lectures.	Demon- strations
Chryston,	1919,	1,123	609	210	10	36
	1920,	1,577	1,267	443	10	38
	1921,	1,413	958	303	7	29
	1922,	1,851	1,358	487	10	33
	1923,	1,747	1,596	430	11	37
	1924,	1,516	1,346	353	10	38
	1925,	1,676	1,369	250	6	41
	1926,	2,305	1,616	320	6	20
	1927,	1,865	1,407	277	13	32
	1928,	1,858	1,467	339	8	22
	1929,	1,757	1,431	213	4	18
	1930,	1,706	1,436	270	6	24
Bishopbriggs,	1919,	1,260	926	282	10	38
	1920,	1,748	1,321	438	9	39
	1921,	1,688	1,041	379	7	30
	1922,	2,225	1,427	526	10	31
	1923,	2,128	1,745	487	10	37
	1924,	2,374	1,892	601	10	38
	1925,	2,145	1,593	571	8	38
	1926,	3,141	2,145	544	5	22
	1927,	1,896	1,332	409	8	35
	1928,	1,722	1,185	292	7	36
	1929,	1,681	1,257	299	4	34
	1930,	1,497	1,209	344	6	28
Cambuslang,	1924,	403	339	233	—	—
	1925,	135	199	190	—	—
	1926,	817	223	304	—	—
	1927,	430	370	290	—	—
	1928,	545	527	347	—	—
	1929,	270	252	199	—	—
	1930,	288	277	208	—	—



*Consultations at Centres.*—The conditions found are summarised in the following table:—

Mothers—				Children—			
Ante-natal,	-	-	35	Gastro-intestinal,	-	-	62
Post natal,	-	-	24	Skin,	-	-	46
Gynæcological,	-	-	18	Respiratory,	-	-	43
Anæmia,	-	-	3	Nutritional,	-	-	35
Debility,	-	-	3	Ear, Nose, and Throat,	-	-	23
Nephritis,	-	-	1	Eyes,	-	-	22
Mastitis,	-	-	1	Debility,	-	-	17
Others,	-	-	9	Hernia,	-	-	12
				Rickets,	-	-	10
				Adenitis,	-	-	7
				Infantile Paresis,	-	-	4
				Phimosis,	-	-	4
				Injury,	-	-	3
				Stomatitis,	-	-	2
				Tongue-tied,	-	-	2
				Chickenpox,	-	-	1
				Mental defective,	-	-	1
				Prolapsis recti,	-	-	1
				Others,	-	-	16

*Visitations.*—The number of visits made by the three Nurse Health Visitors was 6,472, of which 550 were first visits; 4,601 re-visits; 21 special; 22 infantile mortality visits; 269 ante-natal visits; and 1,009 re-visits to children from the age of 18 months to 5 years. These figures, of course, do not include the visits made by the nurses to cases of infectious and contagious diseases, which are referred to on pages      and      .

*Hospital Admissions.*—The County Hospital at Bellshill and Convalescent Homes at Calderbank and Lanark continued to grant facilities for the treatment of suitable cases.

58 mothers were treated in Bellshill, the conditions requiring removal being as follows:—Unsuitable home, 21; abortion, 10; albuminuria, 5; ante-natal treatment, 4; ante-partum hæmorrhage, 3; difficult labour, 3; metorrhagia, 2; hyperemesis, 1; hydramnios, 1; contracted pelvis, 1; contracted pelvis and albuminuria, 1; previous difficult birth, 1; cardiac, 1; epilepsy, 1; delayed labour, 1; chorea, 1; ovarian tumour, 1.

8 mothers, 6 babies, and 5 children were treated in Calderbank or Lanark Home. The mothers were admitted for the following reasons:—Anæmia, 2; post-natal debility, 2; ante-natal debility, 1;

debility, 1; post-operative, 1; cardiac, 1. They were all in necessitous circumstances and could not provide themselves with the rest they required. The results were excellent.

Of the 11 children treated in Calderbank Home, 5 were suffering from debility; 1 from infantile paresis; 1 from hydrocephalus; and 1 was admitted while the mother was in hospital. 3 were also admitted with their mothers.

It should be noted that where patients were transferred from one institution to another (*e.g.*, from Bellshill Hospital to Calderbank Home) is taken as one admission.

In addition, 10 mothers from the district were admitted while in labour to the Royal Maternity Hospital, Glasgow, 4 going in of their own accord and 6 being sent at medical attendant's request. One mother was admitted to the ante-natal ward on account of contracted pelvis.

COUNTY OF LANARK  
DISTRICT OF THE LOWER WARD.

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*Midwives (Scotland) Act, 1915.*

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Annual Report by the Medical  
Officer of Health, 1930

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STAFF.

**Administrative Officer.**

J. HUME PATTERSON, F.R.F.P.S.(Glas.), D.P.H.

**Executive Officer and Inspector of Midwives.**

G. MACLEOD MILLAR, M.B., Ch.B., D.P.H.

**Nurse Health Visitors and Assistant Inspectors of Midwives.**

*(All hold C.M.B. Certificate.)*

MARGARET L. WINCHESTER.

JEAN M'KEE.

MARY C. DICKSON.

## REPORT

*Practising Midwives.*—13 midwives resident within the district notified their intention to practise during the year. 11 resided in the Parish of Cadder and 2 in Rutherglen. 2 of this number left the district during the year.

17 midwives resident outwith the district attended cases during the year, all of whom have recognised qualifications.

*Certification.*—7 of the midwives hold the certificate of the Central Midwives Board for Scotland by examination, while the remaining 6 are *bona fide* midwives.

*Length of Time in Practice.*—5 have been in practice for over 30 years, while 1 has acted for over 20 years.

*Attendance at Confinements.*—704 births were registered, and of this number 647, or 92 per cent., were notified and 27 per cent. were attended by certified midwives. The following table gives, according to parish, the number of births registered and notified, and, of those notified, the person in attendance at confinement according to notification received:—

Parish.	Number of Births.		Attendance at Confinement.			
	Registered.	Notified.	Doctor.	Midwife.	Handywoman.	Institution.
Glasgow, -	149	125	82	30	—	13
Cadder, -	363	346	204	92	3	48
Carmunnock, 10		9	8	1	—	—
Rutherglen, 182		167	91	58	—	17
	704	647	385	181	3	78

*Inspection of Midwives.*—The total number of inspections made by the Assistant Inspectors of Midwives was 48. They found that the personal conditions were satisfactory in 10 instances and only fair in 3. The home conditions were described as satisfactory in 10 instances and only fair in 3.

Four midwives in the district are unable to read or write, and their records are kept by members of the family.

*Extent of Practice.*—The registers kept by the midwives showed that 1 attended over 30 confinements; 2 from 20 to 30; 2 from 10 to 20; 4 from 1 to 10; and 3 had attended none; while 1 only attended confinements with a doctor.

*Medical Assistance.*—In 71 instances a doctor was called to the assistance of the midwife in accordance with the rules of the Central Midwives Board. The conditions requiring medical aid were as follows:—On account of mother—ruptured perineum, 14; delayed labour, 12; difficult labour, 7; rise of temperature, 4; ante-partum hæmorrhage, 4; abnormal presentation, 3; uterine inertia, 3; contracted pelvis, 3; retained placenta, 2; post-partum hæmorrhage, 2; phlebitis, 1; œdema, 1; weakness, 1; retention of urine, 1; still-birth, 1; illness, 4. On account of baby—discharging eyes, 2; collapse, 1; death, 1; convulsions, 1; prolapse of cord, 1; intestinal hæmorrhage, 1; illness, 1.

*Payment of Doctors' Claims.*—42 claims, amounting to £58 14s., were received, and of this sum £14 1s. 6d. was recovered from the husbands of the patients.

*Puerperal Septicæmia (including all Notifications of Puerperal Fever).*—6 cases were notified and were removed to hospital. In one instance a midwife was in attendance at the birth, while in 2 instances the birth took place in an institution. 2 of the cases died, the causes of death being ascribed to puerperal septicæmia and pulmonary tuberculosis respectively.

*Puerperal Pyrexia.*—11 cases were notified, and 5 were removed to hospital. In 2 instances the diagnosis was altered to puerperal sepsis. In 2 cases a midwife was in attendance at the birth.

*Still-births.*—During the year 29 still-births were reported, 20 of which were attended by doctors, 2 by certified midwives, 1 by a handy-woman, and 6 took place in institutions.

*Ophthalmia Neonatorum.*—10 cases were notified, 5 by doctors, 4 by midwives, and 1 by health visitor.

*Liability to be a Source of Infection.*—4 forms were received from midwives who had been in contact with cases of infectious disease. In 3 instances contact was with puerperal pyrexia and in 1 with puerperal fever.

*Notification of having laid out a Dead Body.*—1 form was received during the year.

*Artificial Feeding.*—No form notifying advice of artificial feeding by a midwife was received during the year.

## GENERAL SANITATION.

In the report of the District Sanitary Inspector, which is incorporated, will be found an account of the work done under the headings, "Housing," "Water Supply," "Drainage and Sewage Disposal," "Nuisances," "Seasonal Workers," "Workshops," "Sanitary Condition of Dairies, Cowsheds, and Milkshops," &c.

### Milk (Special Designations) Order (Scotland), 1923.

Glasgow District Board of Control, Gartloch Asylum, were again granted a licence for the production and sale of Certified Milk.

During the year 4 dealers' licences were granted, one for the sale of Grade A (T.T.) and Pasteurised Milk, one for the sale of Grade A Pasteurised Milk, and two for the sale of Pasteurised Milk.

### Veterinary Inspection of Dairy Herds.

The observation and investigation of bovine tuberculosis, especially in dairy stock, has, since the year 1904, been the subject of veterinary inspection, and the detailed result of the work in the Lower Ward is here given.

#### VETERINARY INSPECTION OF DAIRY HERDS.—YEAR 1930.

Parish.	Herds Registered.	Herds Inspected.	Cows Inspected.	Cows with Abnormal Condition of Udder.					Samples of Milk.				
				Tubercle.	Atrophy.	Mammitis.	Induration N.T.	Eruption on Teats.	Totals.	Number taken.	Number found to contain tubercle.	Number found to contain other infectious organisms.	Negative.
Barony,	8	12	180	—	10	—	5	—	15	2	—	1	1
Cadder,	50	75	1,737	1	77	3	14	2	97	21	1	8	12
Rutherglen,	3	3	65	—	6	—	1	—	7	2	—	1	1
Carmunnock,	18	19	645	—	25	3	10	2	40	12	—	4	8
	79	109	2,627	1	118	6	20	4	159	37	1	14	22

Under the Milk and Dairies (Scotland) Act, 1914, it is an offence to sell milk from a cow suffering from any disease liable to infect or contaminate the milk. Samples of milk are taken from any animal



which is suffering from any suspicious condition of the udder. If, on examination, in the bacteriological laboratory such samples are found to contain streptococcus mammitis or other infective germs, a letter is sent to the owner of the animal directing his attention to the fact that it is an offence to sell or expose for sale the milk from such a cow for human consumption. During the year 1930, 13 such letters have been sent. If the samples are found to contain tubercle bacilli the animals are dealt with under the Tuberculosis Order.

COUNTY OF LANARK.

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LOWER WARD AREA.

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## Report by the Sanitary Inspector

### For the Year 1930.

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#### HOUSING.

By the erection of 1,258 houses by the Local Authority and the closure and demolition of 338 uninhabitable houses, vast improvement in the general housing conditions have been accomplished. Whilst there are still a number of houses which are considered to be unfit for habitation, the greater need is for additional houses to reduce the overcrowding which is still prevalent.

Overcrowding of the housing scheme houses, particularly the two-apartment houses, has been frequently noted and dealt with, but there is no doubt that such overcrowding is created entirely by the lack of finance on the part of the tenant. The existing rents are such that, unless the tenant's income is augmented, the rents could not and would not be paid, and the method of course generally adopted to implement the income is by taking in lodgers and sub-letting one apartment.

One particularly serious case of overcrowding was dealt with during the year, that of a three-apartment housing scheme house occupied by 15 persons, comprising 10 adults and 5 children.

The housing scheme in the Rutherglen area at Bankhead, erected by the Western Heritable Investment Company, is still extending. The original scheme of 720 houses of four apartments has been completed and all the houses occupied, and the work of erection of a number of houses for sale is now progressing. It could not be said, however, that this scheme has relieved the housing conditions in the Rutherglen area, as most of the tenants formerly resided in the City of Glasgow or the Burgh of Rutherglen.

#### BUILDING BY-LAWS.

The number of plans lodged was 42, all of which were approved, as compared with 59 in the previous year.

The number and size of the houses, as indicated by the plans lodged, were as follows:—51 houses of three apartments; 147 houses of four apartments; 6 houses of five apartments; and 2 houses of six apartments. In addition there were 61 minor plans submitted and approved, comprising:—alterations to existing premises; new shops; halls; garages; lock-ups; church; bakehouse; electrical sub-station; and school, &c.

The following houses were passed for occupancy up to and including the month of October:—29 houses of three apartments; 145 houses of four apartments; 4 houses of five apartments; and 4 houses of six apartments.

In the administration of the Building By-laws the Building Inspector reported that, up to and including the month of October, 1,911 inspections were made during the progress of construction of houses and other buildings. In connection with sites, formation of roads, and construction of sewers and other matters relative to the Committee's housing schemes 14 inspections were made.

185 applications of the smoke-test were made to the drains and plumber work of 225 properties up to and including the month of October.

This work, since the beginning of November, has been carried out by the County Building Inspector.

#### HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1928.

In connection with the above regulations 230 visits were made in respect of houses considered to be not in a reasonable state of repair—56 of these were secondary visits. 150 houses were considered to be unfit for human habitation.

#### HOUSING (SCOTLAND) ACT, 1925.

19 representations with a view to the making of Closing Orders were submitted to the Committee, and Closing Orders were issued in respect of 17 houses, and 2 houses were closed voluntary. 2 houses in the Rutherglen area and 3 houses in the Chryston area were repaired by the construction of new floors and repair of plaster-work, &c.

Considerable difficulty has been experienced in having a property in Chryston village demolished. The owner has defied all our efforts to have him implement his obligations. Towards the end of the year offers were obtained to have the work of demolition carried out on behalf of the Local Authority.

The property known as Brown's Land, Gartcosh, on which a Closing Order and Demolition Order were made during 1927 and 1928 respectively, could not be dealt with during the year owing to the continued occupation of one of the houses. However, towards the end of the year the tenant was prevailed upon to remove, and the owner was thereafter notified to have the property demolished. The demolition had not, however, been carried out at the end of the year.

The difficulty referred to in last year's report, relative to the removal of two tenants from a row of dwelling-houses at Glenboig, on which a Closing Order and Demolition Order had been issued, was almost the same, with the exception that one of the tenants had removed. The remaining tenant has been defiant since the dwellings were originally condemned, and it was reported to the County Clerk that unless legal action was taken there was no hope of the tenant vacating the house. At the end of the year the matter was in the hands of the legal department.

Tabulated Statements A, B, C, showing Proceedings taken as regards the Inspection and Closure of Dwelling Houses.

#### A.—HOUSING (INSPECTION OF DISTRICT) REGULATIONS, 1928.

1. Number of dwelling houses inspected, ... ..	230	(Includes 56 Secondary Inspections.)
2. Number of dwelling houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation, ... ..	150	

#### B. HOUSING (SCOTLAND) ACT, 1925.

1. Number of representations made to the Local Authority with a view to the making of Closing Orders under Section 8, ... ..	19	
2. Number of dwelling-houses in respect of which Closing Orders were made under Section 8, ... ..	19	(2 houses closed voluntarily.)
3. Number of dwelling-houses, the defects in which were remedied without either the making of Closing Order or the service of Notices under Section 3 (1), ... ..	1	

4. Number of dwelling houses which after the making of Closing Orders were put into a fit state for human habitation, ... ..	Nil.
5. Number of dwelling houses in respect of which Notices were served under Section 3 (1),...	22
6. Number of dwelling houses rendered fit for human habitation under Section 3 (1), ... ..	21
7. Number of dwelling houses in respect of which Closing Orders were deemed to have become operative under Section 3 (1), ... ..	Nil.
8. Number of dwelling rendered fit for human habitation by the Local Authority under Section 3 (2),	1
9. Number of cases where Intimations were given under Section 20 (1) as to insufficient water-closet accommodation, ... ..	5
(a) Cases where requirements were complied with by owners, ... ..	21
(b) Cases where works carried out by Local Authority after failure of owners to do so, ... ..	Nil.
(c) Cases still pending, ... ..	12
10. Number of houses of (a) one apartment, and (b) two apartments, for the erection of which the consent of the Local Authority has been given in terms of Section 111, ... ..	(a)—Nil. (b)—Nil.

C.—HOUSING, TOWN PLANNING, &C. (SCOTLAND), ACT, 1919.

1. Number of cases where Notices were served under Section 40 (1) to provide dwelling houses with water supply, ... ..	Nil.
(a) Cases where requirements were complied with by owners, ... ..	12
(b) Cases where work was carried out by Local Authority, after failure of owners to do so, ... ..	Nil.
(c) Cases still pending, ... ..	13

## HOUSING (RURAL WORKERS) ACT, 1926.

In respect of the three applications for grant approved of in the previous year, the work has now been completed and Certificate B issued. The Committee accordingly authorised the payment of the appropriate grant in each instance:—

- (1) Main Lodge, Cawder, Bishopbriggs. — Work completed at a cost of £216 10s. 6d. Grant of £100.
- (2) Ploughman's house, Eastfield Farm, Rutherglen.—Work completed at a cost of £64 16s. Grant of £43 4s.
- (3) Grieve's house, Johnston Farm, Gartcosh.—Work completed at a cost of £224 13s. 3d. Grant of £100.

Up to and including the month of September 8 applications were received in respect of proposed improvements and alterations to be carried out at the several dwellings concerned. The applications after that date will be included in the County Building Inspector's report.

Of the 8 applications, 7 were approved and Certificate A issued in respect thereof. One was not approved owing to the fact that the property contained one house of one apartment, the Committee having previously agreed that one apartment houses should not participate for grant.

One other application was in respect of two houses of two-apartments which were the subject of a Closing Order. The proprietor stated that it was his intention to carry out repairs and improvements so as to make the house fit for human habitation. The Closing Order in respect of these houses will require to be determined before the houses are again occupied.

The following is a note of the alterations and improvements proposed to be carried out at the several properties:—

- (1) Comedie Farm Cottages, Stepps.—3 two-apartment houses.

To erect annexe in front of each house with water-closet apartment and scullery arrangements.

Gravitation water supply to each house.

Reconstruct existing building to washhouse.

Drainage system with suitable cesspool.



- (2) Garthamlock Farm, Gate Lodge, Stepps.—1 two-apartment house.  
 Reconstruct existing building for water-closet apartment and ashpit.  
 Re-slate roof, new facing boards, rhones and conductors.  
 New floor in kitchen.
- (3) Garthamlock Farm, Stepps.—Ploughmen's houses.—3 houses of two-apartments.  
 To erect annexe at each house to contain water-closet apartment and scullery.  
 Introduction of water supply to each house.  
 New drainage system and cesspool.  
 To alter doors and windows.
- (4) Cranhill Cottages, Shettleston.—2 houses of two-apartments.  
 Strap and lathe inside of external walls.  
 Insert vertical damp-proof course.  
 Gravitation water supply and sink to each house.  
 Erection of washhouse.  
 Re-lay floors.  
 Drainage system with cesspool.  
 New rhones and conductors.  
 Point and repair all defects on outside walls.
- (5) Meiklehill Farm, Bishopbriggs.—1 three-apartment house.  
 Reconstruct present house of five-apartments to one of three-apartments.  
 Provision of water-closet and gravitation water supply.  
 Inside sink.  
 Larder accommodation.  
 Re-plaster walls and ceilings.  
 New floors.  
 New drainage system.
- (6) Laigh Kenmure Farm, Bishopbriggs.  
 Erect kitchen to existing one-apartment house.  
 Annexe to each dwelling, with water-closet and scullery wash-house.  
 Introduction of water supply.  
 New drainage system.
- (7) East Cathkin Farm, Rutherglen.  
 Erect outside wash-house.  
 Water-closet and sink.  
 Gravitation water supply.  
 New drainage scheme.

(8) Johnston Farm, Gartcosh.—Grieve's house.

New bathroom and water-closet.

Reconstruction of wash-house.

Drainage and suitable cesspool.

Construction of dormer windows to bedrooms.

## WATER SUPPLY.

The portion of the district from which the supply is received from the Glasgow Corporation includes the following areas:— Budhill Avenue; Springboig; Sandyhills; North Mount Vernon; Colston and part of Bishopbriggs; Auchinairn; King's Park, at Bankhead; Rutherglen; Farme and Eastfield; and part of Burnside. The supply to these areas during the year was satisfactory.

A complaint from a householder in a row of semi-detached villas referred to the discolouration, &c., of the water supply. As the supply is from Loch Katrine, Glasgow Corporation were notified, but there was no apparent ground for complaint. However, as the complaint was insisted on, the Water Department ultimately relaid a portion of the main supply pipe.

A supply from the County is maintained for part of Burnside and part of Glenboig. This was satisfactory, and no complaints were received.

The supply to the residential part of South Lenzie is, by arrangement, provided by the Commissioners of the Burgh of Kirkintilloch, and was satisfactorily maintained during the year.

*Cadder Special District.*—Complaint was received from Crosshill and Bearhill Farms, Crosshill Road, Bishopbriggs, as to the pressure being intermittent and defective. On examination the supply pipe was found to be corroded up, thereby reducing the bore of the pipe. It was recommended to scrape the pipe. This has now been done, and the pressure greatly improved.

A complaint was received regarding the defective supply at Horns-hill Road, Stepps. It was reported that the supply was by a 3-inch cast-iron main from Cumbernauld Road to beyond Garfield House, where it is reduced to 2-inch diameter, the pipe being supplied by a 1-inch connection from the 7-inch main in Cumbernauld Road. It

is an old pipe and badly encrusted and its capacity much reduced. It was agreed to make a 3-inch connection, which would increase the supply and obviate all cause for complaint.

In last year's Report mention was made of several extensions throughout the district to be carried out as schemes for the relief of unemployment. So far these have not been done.

## REPORT BY WATER SUPERINTENDENTS.

### SOUTHERN SECTION.

The total quantity of water registered during the year 1930, for all purposes, at Lethamhill and Glenboig meters was 166,749,000 gallons, which includes 4,682,000 gallons registered at Glenboig, showing an increase of 67,000 gallons as compared with last year, which was 166,682,000 gallons.

The average daily consumpt for all purposes was 456,846 gallons, as against 456,663 gallons, showing a daily increase of 183 gallons.

The consumpt for all purposes, excluding Gartloch Asylum and trade purposes, was 109,926,600 gallons, showing a daily consumpt of 301,168 gallons.

The population of the district, including part of the Northern Section, supplied by Lethamhill meters, taken as 12,195, shows a daily consumpt per head for all purposes at 37·46 gallons.

The daily consumpt per head, excluding Gartloch Asylum and trade purposes, was 28·16 gallons.

There were 5 connections made to water mains, 1 for domestic purposes and for 4 other than domestic.

### NORTHERN SECTION.

The total quantity of water registered during the year was:—Lochfaulds meters (gravitation supply) No. 1 meter, 3,598,000 gallons; No. 2 meter, 17,424,000 gallons; Balornock meter (pumped water), 23,720,000 gallons; and at Kenmure meter (pumped water), 6,281,000 gallons, giving a total consumpt through the four meters of 51,023,000 gallons, being an increase of 1,519,000 gallons.

The average daily consumpt, for all purposes, was 139,789 gallons, an increase of 4,162 gallons as compared with last year. Taking the population at 3,802 (Police Census), the consumpt is equal to 36.76 gallons per head.

The iron piping in this section was increased by laying 85 lineal yards in new street off Kirkintilloch Road. The total length of iron piping in this section now amounts to 37 miles 1,465 lineal yards.

75 lineal yards of 6-inch water main was laid in Balmuildy Road in connection with a road improvement scheme.

20 connections were made to the water mains during the year, 15 for domestic purposes and 5 for building and meter purposes.

## DRAINAGE.

### SPECIAL DRAINAGE DISTRICTS.

BARONY.—WESTTHORN SEWAGE PURIFICATION WORKS.—The position of these works is still the same as when last reported on.

Considerable difficulty is still experienced in dealing with the excess of sludge, owing to the inability of the farmers in the vicinity to utilise the quantity produced.

Owing to the subsidence in the outfall sewer from the grounds of Westthorn to the overflow to the Clyde, this portion was lifted and re-laid during the months of November and December, the whole of the sewage being meantime discharged to the Clyde.

Advantage was taken to clean out the tanks and overhaul the engines and compressors.

It was noted during the early part of the year that the porosity of the diffusers was very poor. In view of the results being obtained it was arranged to remove  $\frac{3}{8}$  inch from the crust of the diffusers. This was carried out, 286 diffusers being dealt with, and a vast improvement in the effluent was obtained, but it was also found necessary to obtain fresh activated sludge owing to the effluent in the activated tanks having gone septic.

Communications were made to the constituent authorities requesting their approval to the proposal to improve and extend the works according to the specification and report by the Engineers, previously

submitted, at a cost of £9,000, as a scheme for relief of unemployment and subject to a grant being obtained from the Unemployment Grants Committee. It was further reported that the District Committee of the Lower Ward had approved of the proposal, and a letter from the Clerk to the District Committee of the Middle Ward was submitted stating that that Committee also approved as far as the Middle Ward was concerned. It was further reported that there had been correspondence with the Corporation of Glasgow, but a reply had not been received, questions about the reconstruction of the main sewer, which is wholly vested in Glasgow, having arisen. Other expressions of views by members, and the Engineers having been heard, it was agreed, provided the Corporation of Glasgow approve of the proposal, to alter and enlarge the Westthorn Sewage Works (in which the Glasgow Corporation have the major interest) at an estimated cost of £9,000, the other two constituent authorities having already agreed, to recommend that the work be carried out as a scheme for the relief of unemployment, and that application be made to the Unemployment Grants Committee for a grant in respect thereof.

The sewers throughout the district were inspected during the year and dustpans cleaned out.

A report was received of a manhole on the line of the sewer in Hallhill Road, Springboig, having become dangerous. The defective cover was replaced by one of a heavier pattern.

A scheme was submitted by the Glasgow Corporation for sewers at the area at Carntyne belonging to them outwith the City boundaries, and sending plans and sections of sewers to be constructed. Our Engineer reported regarding the sewers, and stated that they had examined the plans and sections and found them to be in order. gradients shown are in every way self-cleansing gradients and the manholes provided on the sewer are sufficiently numerous and of ample capacity.

RUTHERGLEN (LANDWARD).—For a considerable number of years past the re-iteration of the statements regarding the floodings and surcharging of the sewers at Burnside has been a feature of this part of the report. This year, however, whilst very serious floodings took place during the months of January, March, July, and September, a partial remedy in the construction of a new 15-inch outlet sewer was completed during October. Since that date improvement in the flood-

ing conditions has been effected, but the trouble is not yet wholly eradicated. The new 15-inch sewer referred to was laid in Blairbeth Road and Mill Street, and connects to the joint intercepting sewer at Bankhead House. It diverts the sewage from High Burnside and Blairbeth Road so that less hold-up takes place in the Stonelaw Road sewer, through which the sewage from this area flowed. In consultation with the County Engineer regarding the whole of the flooding question at Burnside, it was pointed out that the real cure for the problem would be to reverse the Southhill Avenue sewer and discharge it to the Cambuslang Road main sewer, so that the Stonelaw Road sewer in the Burgh of Rutherglen would be relieved, and surcharging of this sewer would be avoided. The County Engineer has reported on these lines.

As a temporary expedient during the severe flooding, a 6-inch overflow pipe from the manhole at the junction of Springfield Park and Southhill Avenue to a surface water drain was constructed, and no doubt this to some extent reduced the flooding danger.

The surcharging of the main intercepting sewer has been continuous throughout the year, and all overflows have been regularly in action. To facilitate the regular cleansing of this sewer a new scour valve was constructed and completed in place of the existing overflow at White's Works. This will allow of that portion of the sewer between the old scour valve at the Railway Bridge and White's Works, which is in a very badly silted condition, being properly cleansed.

Owing to the large flow in this sewer it has been found impossible to cleanse it properly during week days, when all works are in operation, and this year it was decided to endeavour to make some improvement by cleansing the sewer during Sundays. This was carried out and a considerable amount of silt and road grit was removed from the sewer. In this connection I might also state, as an item of interest and wonder, that there was taken from one of the sewer manholes two 4-inch by 2-inch battens, 4 feet in length. How such articles gained access to the sewer it is difficult to understand.

A rather serious case of flooding took place during January at Messrs. The Dalmarnock Products Co.'s premises at Dalmarnock Bridge. Prior to calling in the aid of this department the firm's



tradesmen had broken the iron pipe exposed. On breaking this pipe the sewage under strong pressure flooded into the trench. After being baffled this department was called in, and it was found that the sewer had been broken and that the flooding and chokage was caused by the severe surcharging of the main sewer. After considerable difficulty the sewer was made good, and although a claim was made by the firm for repayment of expenses this was refused and liability denied.

Crosshill burn was again the source of complaint, this time from the Board of Health, caused by the pollution through the discharge of sewage from houses within the Middle Ward area. The burn was again thoroughly cleansed, and towards the end of the year the open portion of the burn was ultimately piped, on representation by Forrester, Builder. A grant of £40 was given by the County Council for this purpose.

Considerable flooding was also experienced at the corner of Gallowflat Road and Cambuslang Road, and complaint was received from The Richmond Park Laundry Co., owing to a portion of their premises being flooded. Investigation was made in company with the Rutherglen Burgh Engineer and the County Engineer, when it was pointed out that the trouble was really caused by the very large volume of sewage from the Burgh of Rutherglen discharging into the Cambuslang Road sewer through two manholes to which a number of subsidiary sewers connect causing a surge back of the heavy flow, accentuated also by the awkward bend of the sewer at this point.

The whole question of the main intercepting drainage has been remitted for a report to be prepared by the County Engineer.

A request was made by the Estate Agents to take over a sewer in Greystone Avenue, Burnside. This was refused until certain defects which had been observed during construction were made good. The work was made good and the sewer taken over latterly. This, however, serves to emphasise the importance of all private sewers being inspected during the construction.

Plans, sections, and specifications of various sewers in Craigwell Avenue, Calderwood Road, and Southhill Avenue, Burnside, were submitted from the Eastfield Estate Engineers. These were examined and approved of, and reported to the Committee as being in accordance with our requirements.

Several manholes were repaired and open covers closed during the year.

The undermentioned sewers were taken over as public sewers on representation of the Estate Engineers or Builders, and on the confirmation of the information that there was sufficient revenue derived from the assessable valuation to repay sinking fund and interest on the cost of the sewers over a period of 30 years :—

(1) In Cathcart Road and private property.

A 12-inch sewer commencing at a point in the centre of Cathcart Road situated 114 yards or thereby west of Montford Avenue, and on the City boundary extending in an easterly direction in the said road for a distance of 63 yards or thereby, thence passing through private property, first in a southerly thence in an easterly direction, and terminating in the centre of Montford Avenue in a manhole situated 40 yards or thereby south of Cathcart Road, the total length of the 12-inch sewer from the point of commencing being 147 yards or thereby.

(2) In Montford Avenue.

(a) A 9-inch sewer commencing in the last mentioned Avenue and extending in a southerly direction and terminating in a manhole situated 47 yards or thereby from the point of commencement.

(b) A 9-inch sewer commencing in Montford Avenue situated 155 yards or thereby east of Castlemilk Road and on the City boundary extending generally in a south-easterly direction and terminating in a manhole situated 256 yards or thereby from the point of commencement.

(3) In Kilmorie Drive.

A 9-inch sewer in Kilmorie Drive commencing in the last mentioned manhole and extending generally in a south-easterly direction and terminating in a manhole situated 188 yards or thereby from the point of commencement.

(4) In Kingsacre Road.

(a) A 15-inch sewer commencing at a point in Kingsacre Road situated 107 yards or thereby east of Castlemilk Road and on the City boundary and extending generally in a south-easterly and easterly direction and terminating in a manhole situated 150 yards or thereby from the point of commencement.

- (b) A 9-inch sewer commencing in the last mentioned manhole and extending generally in an easterly and north-easterly direction and terminating in a manhole situated 100 yards or thereby from the point of commencement.
- (c) A 9-inch sewer commencing in a manhole in Kingsacre Road situated 56 yards or thereby south of Kilmore Drive and extending in a north-easterly direction and terminating in a manhole in Kilmore Drive situated 61 yards or thereby from the point of commencement.

(5) In Kingsbridge Drive.

- (a) A 9-inch sewer commencing at a point in Kingsbridge Drive situated 50 yards or thereby east of Castlemilk Road and on the City boundary and extending generally in an easterly direction and terminating in a manhole situated 120 yards or thereby from the point of commencement.
- (b) A 15-inch sewer commencing in a manhole situated in Kingsbridge Drive 40 yards or thereby east of the last mentioned manhole and extending in an easterly direction and terminating in a manhole 100 yards or thereby from the point of commencement.
- (c) A 12-inch sewer commencing in the last mentioned manhole and extending in an easterly direction and terminating in a manhole situated 346 yards or thereby from the point of commencement.

(6) In Wayleave between Kingsacre Road and Kingsbridge Drive.

- A 15-inch sewer commencing in a manhole on Kingsacre Road situated 252 yards or thereby to the east of Castlemilk Road and extending in a southerly direction through an 8 feet wide wayleave and terminating in a manway in Kingsbridge Drive situated 70 yards or thereby from the point of commencement.

(7) In St. Blanes Drive.

- (a) A 9-inch sewer commencing at a manhole in Kingsbridge Drive situated 100 yards or thereby to the east of the last mentioned manhole, and extending in a north-easterly direction and terminating in a manhole situated 100 yards or thereby from the point of commencement.

- (b) A 9-inch sewer commencing at a manhole in St. Blanes Drive situated 54 yards or thereby north-east of the last mentioned manhole and extending in a north-easterly direction and terminating in a manhole situated in Kilmore Drive at a distance of 60 yards or thereby from the point of commencement.

(8) In Bankhead Road.

A 9-inch sewer commencing in a manhole in Kingsbridge Drive, at the junction of Bankhead Road with the said Drive, extending in a northerly and north-easterly direction, terminating in a manhole situated 82 yards or thereby from the point of commencement.

(9) In Wayleave between Kingsbridge Drive and Kingsheath Avenue.

A 9-inch sewer commencing in a manhole in Kingsbridge Drive situated 217 yards or thereby east of Bankhead Road and extending in a southerly direction through a wayleave and terminating in a manhole in Kingsheath Avenue, situated 72 yards from the point of commencement.

(10) In Kingsheath Avenue.

(a) A 9-inch sewer commencing in last mentioned manhole and extending generally in a westerly direction and terminating in a manhole situated 214 yards or thereby from the point of commencement.

(b) A 9-inch sewer commencing in a manhole in Kingsheath Avenue situated 77 yards or thereby west of the last mentioned manhole and extending in a westerly direction and terminating at the City boundary 273 yards or thereby from the point of commencement.

(11) In Greystone Avenue.

A 9-inch sewer extending for a distance of 143 yards, laid for John Allan in Greystone Avenue, there being sufficient valuation to repay sinking fund and interest at a cost of £99 14s. 9d.

A private sewer at the rear of Lochbrae Drive, Burnside, was badly choked during the year, and cleared on notification to the proprietors.

A property at Cambuslang (Burnside Buildings) gave considerable trouble through almost continuous chokage of the main drain. It was ultimately arranged, after levelling the existing drain, to make a complete new connection to the sewer, and since this has been carried out no further chokages have taken place.

2 water-closets were erected and one water supply was introduced.

2 smoke-tests to drainage systems were carried out during the year.

BISHOPBRIGGS AND AUCHINAIRN.—The sewers throughout the district continue in good working order.

A chokage in a portion of the sewer at the Auchinairn Housing Scheme was reported and when opened up the chokage was found to be caused by a defective joint. This was made good and the sewer is now in order.

It was observed in the early part of the year that the culvert which carries the Bishopbriggs burn on the west side of Kirkintilloch Road at Colston had collapsed, and the burn diverted from its usual course. It was thought that the water was finding an outlet to the sewer. On consulting our Engineers it was agreed to expose the sewer and have it inspected. Three openings were made on the line of the sewer which was found to be in good order, there being no evidence that there was infiltration of burn water.

The field drains from the hockey pitch at Messrs. Blackie & Son's works are still connected to the sewer. As this arrangement was at the pleasure of the late Lower Ward Committee I think the time has arrived when it should be discontinued.

*Sewage Purification Works.*—Bulking of sewage is still taking place in the pockets of the aerating tanks, as was reported in last year's report, and it is most pronounced when the flow exceeds 25,000 gallons per hour.

During the year less trouble has been experienced with broken clutch pins, although some of them had to be replaced.

It was stated in last year's report that the Committee had agreed to construct two sludge tanks in order to facilitate more efficient separation of the sludge from the clear effluent and to increase the capacity of the works, at an estimated cost of £5,000. The County Engineer has been instructed to proceed with the proposed additions, and it is expected that the work will be commenced at an early date.

In the early part of the year complaints were received from residents in Hilton Terrace, complaining of smells from the works. On making investigations it was found that this was due to the



farmer cleaning out the sludge pits and spreading the sludge on the adjoining ground. A further cause which contributed to the complaint was the fermentation of the sludge in the pits, the resultant odour being carried towards the houses by the east wind which prevailed for some time. Steps were taken at the time to remedy matters, and no further complaints were received.

The following sewers were taken over as public sewers :—

Sewers numbered 1 and 13 as per the list of sewers which was submitted by Messrs. Keir & Cawder, Ltd.

- (1) A 12-inch sewer from the Committee's main sewer where it crosses Jellyhill Road near Bishopbriggs Sewage Works, and along Jellyhill Road, thence along the burn and the Carron Railway with branches towards the site of Messrs. Blackie & Son's works and towards feus fronting the Kirkintilloch Road, at cost of £1,887 5s.
- (13) Continuation of the above sewer from the main sewer behind feus fronting west side of Kirkintilloch Road for about 60 yards, northwards along Kirkintilloch Road for about 96 yards and along proposed road parallel to Allan Glen's School recreation ground from Kirkintilloch Road eastwards for about 68 yards, at a cost of £328 1s. 6d., amounting together to £2,215 6s. 6d.

STEPS DRAINAGE.—The sewers throughout the district continue in good working order. They were inspected during the year and the dustpans cleaned out.

A chokage again took place in the private sewer in the lane at the rear of Whitehill Avenue. This sewer drains twelve houses in Whitehill Avenue and discharges to the Local Authority's sewer in Church Road. As previously reported the gradient of this private sewer is very flat and may eventually have to be lifted and relaid. Meantime, the chokage having been cleared, the sewer is running clear and no complaint has since been received.

SEWAGE DISPOSAL WORKS.—The sewage tanks were cleaned out twice during the year, and as no sludge has been removed from the sludge pit since last reported on a temporary expedient had to be made by raising the sides of the sludge pit to retain the sludge. It will be necessary to make other provision for the retention of the sludge before the tanks can be emptied again.



A breakdown occurred in one of the filters owing to the ballrace having become defective. The cause of the defect was that the wheel and spindle supporting the filter arm were very much worn causing it to be off the level and throwing a strain on the bearing. Replacements for the worn part were obtained and all defects made good.

In last year's report it was stated that owing to the increased population within the district it would be necessary to increase the size of the tanks and the filters. The matter has now been remitted to the County Engineer to prepare the necessary plans.

CHRYSTON AND MUIRHEAD.—The Bridgend Sewage Works were thoroughly cleansed twice during the year. Nothing further has been done towards improving and extending Bridgend Works, but it is hoped that now the scheme is under the charge of the County Engineer the work of improvement will no longer be delayed. The disposal of sludge and the condition of the filters were difficulties which had to be overcome during the year as in former years, and these difficulties will require to be faced continually until such time as the works are extended, new filtering material supplied and proper sludge pits constructed. The last mentioned improvement is very much required, as during the past few years the occupiers of adjoining houses have complained bitterly of nauseating odours from the existing sludge pits, and the only remedial measure which can be carried out just now is the copious use of chloride lime.

Moodiesburn tank was cleansed once during the year, and the Drumeavil tanks were cleansed once. Considerable improvement could be made at both these disposal points—particularly the Moodiesburn tank, which is now badly overtaxed, and this results in serious pollution of the outfall burn which has not a heavy flow. During the year the tank was seriously choked, and it was only after considerable difficulty the chokage was cleared.

The sewer dustpans were cleansed during the year.

4 drainage systems were reconstructed and smoke-tested during the year and all defects attended to.

7 water-closets were supplied.

Under the Miner's Welfare Scheme, splendidly constructed and equipped premises were erected during the year at Auchingeich Colliery, supplying spray baths for the miners, lockers for their

clothes, facilities for boots, cleansing and greasing, &c., &c. A drainage system with suitable tank treatment and outlet to the Bothlyn burn was constructed, the waste water being treated separately from the soil drainage.

GARTCOSH.—The sewage works were cleaned out twice during the year, and the sewer dustpans attended to.

The defective manhole taking sewage from Messrs. Smith & M'Lean's works, reported upon last year, was ultimately disconnected and the sewage from the steel works is now being dealt with in a newly constructed cesspool outflowing to the Bothlyn burn.

The sewer in Gartloch Road was choked during the year—this sewer is at a very flat gradient and chokages readily take place. The sewage works attendant, however, has instructions to inspect regularly and clear this sewer if necessary.

One connection was made to a public sewer without inspection by this department.

Complaint was made during the year regarding flooding of the low lying areas surrounding Gartcosh. The matter was taken up by the Rivers Pollution department and dealt with.

SOUTH LENZIE.—The sewers in this district are the property, and under control of the Commissioners of the Burgh of Kirkintilloch.

Regarding the flooding of the basement of Burnbank Terrace, previously reported on, an overflow from the sewer in Auchinloch Road was laid to the burn, but this does not appear to have had the desired effect as flooding has taken place since.

The main outfall sewer on the north side of the burn becomes surcharged during the heavy rain, and until this is remedied flooding will take place at intervals.

GLENBOIG JOINT SCHEME.—The work of laying the sewers in this district has commenced, and the contract for the construction of the works will be issued at an early date. The whole scheme will be completed next year.

CARMUNNOCK.—The sewage works were cleaned out twice during the year.

The very necessary extension required at these works in view of the serious surcharging which takes place during wet weather, is now being dealt with by the County Engineer.

The sewer at Pathhead on the Waterbank Road was completed during the year by the estate proprietors so that feuing could be encouraged.

1 new manhole was constructed on the Busby Road sewer.

5 smoke-tests were carried out on reconstructed drainage systems during the year.

3 water-closets were erected.

The drainage system of Castlemilk mansion-house was thoroughly smoke-tested and several defects brought to the notice of the owner.

The notice of the Building Inspector was drawn to the possibility of pollution of the drinking supply of animals by the discharge of the drains from a new house into a field outlet.

18 connections to sewers in all districts were constructed during the year.

## LIGHTING.

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### SPECIAL DISTRICTS.

RUTHERGLEN.—The consent of the County Council having been obtained the district was extended to include that portion of Bankhead within the King's Park Housing Scheme.

107 lighting points were fixed and the erection of the necessary standards, cables, &c., carried out.

BISHOPBRIGGS AND AUCHINAIRN.—The 7 additional lamps have now been erected at Jellyhill.

STEPS.—The erection of 4 lamps in Third Avenue, mentioned in last year's report, has now been carried out.

GLENBOIG.—Consent was received for the capital expenditure of £400 for the lighting by electricity of the recent extension. The proportion falling to be borne by the Middle and Lower Wards respectively being £297 and £103.

## SCAVENGING DISTRICTS.

There are eight Special Scavenging Districts in the Lower Ward District.

**NORTH SHETTLESTON.**—The work in this district continues to be carried out in a satisfactory manner. A daily collection is maintained at the tenement properties, and twice weekly at the National Housing Scheme and Springboig.

The refuse is wholly disposed of at the coup at Cranhill, which is being kept in good order. Trouble was again experienced with fire. This is now extinguished and the work of tipping is carried out on a lower level, which is more satisfactory and less likely to catch fire, either maliciously or by internal combustion.

In the early part of the year complaints were frequent regarding the condition of the back-courts. Since May another scavenger has been employed, whose duties are to sweep back-courts, private streets, and lanes. There is now a decided improvement, which is appreciated by all concerned.

Further progress has been made with the asphaltting of the back courts and in several cases of asphalt footpath has been laid from the close to the wash-house and dustbin.

18 dustbins were supplied during the year.

**BISHOPBRIGGS AND AUCHINAIRN.**—A weekly service is maintained in this area at the dwelling-house properties, the shop refuse being removed daily. By arrangement the refuse from Messrs. Blackie & Son's works is still being removed twice weekly, but owing to the new extension at these works, which is to be opened at an early date, the removals will require to be increased.

The scavenging work is being carried out under contract, horses and men being hired by the day from a contractor, and two men employed directly by the Committee.

The refuse is being deposited in a disused pit on the lands of Springfield. Considerable trouble was experienced in the early part of the year by a fire, maliciously set by boys, on a deep face of the coup. As the background of the coup is composed of blaes difficulty

was experienced in keeping the fire from spreading. The refuse is now being deposited on the lower ground and there is less likelihood of a recurrence of fire.

Owing to the considerable building operations over some years, numerous private streets have been formed and complaint has been received as to their condition. The present cleansing staff is unable to overtake this work and the Committee have been advised to engage another scavenger to sweep the streets and back-courts.

10 dustbins were supplied during the year.

STEPS.—The work is being carried out by the same contractor, and a satisfactory twice-weekly service is maintained.

The refuse is still being deposited on the low lying ground on the west side of Magazine Road.

In the early part of the year farmers in the vicinity received the consent of a member of the committee to remove refuse for top dressing their fields from a portion of the coup which was consolidated, with the result that when they were finished the whole area had a most unsightly appearance. We are just now getting the coup into proper order. There have been no direct complaints regarding the coup, but I understand there is a general desire that the depositing of refuse at this point should be discontinued and a dump found elsewhere. There will be difficulty in finding a suitable coup in this area.

2 dustbins were supplied during the year.

RUTHERGLEN (LANDWARD).—The scavenging in this area was increased to a large extent this year by the inclusion of the Bankhead Housing Scheme within the boundaries of the Rutherglen (Landward) Special Scavenging District. This scheme, meantime, comprises 728 houses, and as it is a long distance from Cambuslang Destructor, two alternatives were open in deciding the proper disposal method of the household refuse. Consideration was given to the proposed disposal of the refuse in an adjoining quarry, and this no doubt would have been a very cheap method of disposal, however, with lack of proper control, the newly formed tip being so near inhabited dwellings might have created cause for complaint. It was ultimately decided to dispose of the refuse at Cambuslang Destructor, despite the greater cost. Whilst, generally speaking, the work has been carried out as

satisfactorily as can be expected when dealt with by private contractor, if it were not for continuous supervision and reminding from this department there is no doubt the work would not be carried out as efficiently as it ought to be.

Plans and alternative estimates were prepared by this department for the new Bankhead area, and these were considered by the Committee, when, as already stated, it was decided to proceed with the work on estimates being obtained from the contractor for twice-weekly cleansing and disposal in Cambuslang Destructor.

The following is a copy of report submitted to the Committee :—

“With regard to the proposed extension of the Rutherglen  
“(Landward) Special Scavenging District to include the houses  
“recently erected by Messrs. M‘Taggart & Mickel and Messrs. The  
“Western Heritable Investment Co., Ltd., at the area of ground  
“adjoining Westfield, and known as Kings Park, I append hereto  
“a note of valuation and prospective cost and relative rates, and  
“an outline of alternative schemes :—

Number of houses—720.

Population (estimated)—2,880, say 3,000.

Estimated amount of household refuse per day—2 tons 5 cwts.

Weekly amount to be removed—16 tons (approximately).

10 cartloads (approximately).

“If this refuse is to be disposed of by burning in Cambuslang  
“Destructor, only two loads per day could be taken by horse and  
“cart owing to the distance of haul, viz. :— $2\frac{1}{2}$  to 3 miles, and if this  
“was to be the mode of disposal it would mean that it would take  
“five days each week for one horse and cart and two men to remove  
“the refuse at the following costs, viz. :—

1 new cart—£60.

5 days for horses and 2 men at 30s. per day—£390.

Disposal cost in Cambuslang Destructor at 2s. 4d. per ton—£98.

Total, £548.

Amount to be derived annually at present rate of 4·25d. per £—

Scavenging Assessment, ... .. £408

Deficit, ... .. £140

To rate this part of the district separately would mean a rate  
of 5·6d. per £.



To rate this part in conjunction with the whole area would mean a rate of 4·75d. per £, or an increase in the present rate over the whole area of ·50d. per £.

“These are all approximate figures, and, as the yield of refuse is a varying figure, it is impossible to make a definite calculation. The figures, however, have been purposely kept a little high so that the probability is that with this scheme there would be no increase in the present rate.

“If it were arranged and found suitable from a public health standpoint to acquire at an annual rental the use of the quarry at Westfield for the dumping of the refuse, this would mean a very large saving, it being then possible to dispose of 4 cartloads per day, and the cost working out as follows:—

1 new cart, ... ..	£60
2 days for horses and 3 men at 30s. per day, ...	195
Rental of coup, ... ..	25
	<hr/>
	£280
	<hr/>

This would mean no increase whatever to the present scavenging rate, but probably would assist in reducing the rate over the whole area.

“Another alternative method of collection is still before the Committee, and that is the collection of the refuse by motor haulage. There are many methods of motor collection and it would not be advisable to attempt to estimate one method here, but if the Committee decided to consider this mode of collection a few alternative methods could be prepared for consideration.”

Repeated complaints were received during the year regarding the non-removal of garden refuse. This is a vexed question in this district, due no doubt to the close proximity of the Burgh of Rutherglen, where the householders are encouraged to have their garden refuse collected by the Scavenging Department, with the result that the householders in the County area feel they are being hardly dealt with. Under the regulations drawn up by the former Rutherglen (Landward) Special Scavenging Committee, garden refuse was *not* to be removed by the scavenging contractor, but this was somewhat amended last year when a proviso was inserted in the contract, stating that garden refuse was to be collected during season. This amendment

was meant to be dealt with by the contractor removing garden refuse which could readily be accommodated in the house dustbin along with the house refuse, and not accumulated to such a degree that special carts would be required. The matter is somewhat serious from the contractor's point of view in an area so large and scattered as this is. It might mean that he would require to employ extra men and supply vehicles and horses for the specific purpose of removing garden refuse.

As an indication of the heterogeneous material disposed of in the dustbins, I would report that on one occasion 44 milk bottles of all grades and sizes were removed from a dustbin in a tenement property. The how and the why of such articles being there was never found out.

Twice during the year use had to be made of the coup at Cuningar for the disposal of refuse, owing to the destructor being, on the first occasion, shut down for the annual cleaning of the flues, and on the second occasion because of the large quantity of untreated refuse stocked. It would appear from the excuse on the second occasion that the destructor is not of sufficient capacity to deal with the total refuse now being removed for disposal.

A complete revision of the general methods of scavenging in this area is imperative, and I am of opinion that the whole matter should be fully considered next year, and the general facilities improved and brought up to meet the present modern requirements.

45 dustbins were supplied during the year.

After the preparation of plans and specifications by this department for the asphaltting of the back-courts at the Housing Scheme in Barnflat Street, tenders were accepted and the work carried out, with very great improvement.

CHRYSTON AND MUIRHEAD. — The work of scavenging in this area has been carried out in quite an efficient manner during the year, and no complaint of serious nature was received.

The coup at Lilybank has been kept in good order, and since the improvement made last year no further dumping has taken place within fifty yards from the public highway.

Again it has to be stated that the use of the open cart for the removal of refuse is an anachronism. In these modern times this type of vehicle shows a distinct disregard for hygiene. The papers

and dust, &c., cannot be kept from being blown about and scattered over the highways during removal. On every occasion on which I see this cart full, I feel totally discouraged in any attempt to improve the general sanitation whilst such a method is being continued with. I hope that during the coming year consideration will be given to the supply of a properly-covered scavenging cart, so that at least some progress may be made towards the ideal in scavenging, *i.e.*, dustless removal of refuse.

CARMUNNOCK.—The scavenging contractor carried out his duties within this area in a fairly satisfactory manner throughout the year. No complaints of a serious nature were received.

SOUTH LENZIE.—The work in this area is being carried out by private contract by the same contractor as last year. A weekly service is being maintained. No complaints were received during the year.

The refuse is still being deposited in the old quarry at Boghead.

A visit was made to the coup by the Department of Health's Cleansing Inspector, and he was satisfied with the condition of the coup.

4 dustbins were supplied during the year.

GARTCOSH.—This work is being fairly satisfactorily carried out by private contract. The refuse is dumped at a market garden, and reason for complaint regarding the large accumulation arose during the year. However, towards the end of the year the conditions were greatly improved, as the refuse was then used as a ground for the cultivation of bulbs, the whole being levelled over and top-dressed with fine engine ashes.

Such improvement has been effected during the past few years in clearing away privies and privy-middens and substituting water-closets therefor that, excepting at certain properties which are on the list of uninhabitable houses, no further improvement can be made.

Correspondence has been entered into with Messrs. Smith & McLean, Ltd., regarding improvement in various lanes at the firm's housing schemes. A number of these lanes during wet weather are in a very muddy state, due to inefficient drainage, and in some

instances the surface water flows into the rear wall of the dwelling-houses.

Request was made during the year to the Special Scavenging Committee to consider the advisability of supplying a properly-covered scavenging cart.

### SPECIAL DISTRICTS.

The Special Districts for the purposes of Water Supply, Drainage and Sewage Disposal, Scavenging and Lighting, are shown in the following table. The rates of assessments (half owners, half occupiers) for the year 1929-30 are also shown. A blank in the assessment column means that no district has been formed for the special purpose indicated :—

District.	Parish.	Water.	Rate of Assessment per £			
			Drainage.	Sewage Purification.	Scavenging.	Lighting.
Bishopbriggs and Auchinairn.	Glasgow and Cadder.	1/-	10d.	—	3d.	4½d.
(a) Cadder.	do.	1/-	—	—	—	—
Carmunnock.	Carmunnock.	3/1	1/2	—	6½d.	6½d.
Chryston and Muirhead.	Cadder.	1/-	8d.	—	4d.	2½d.
Gartcosh.	do.	1/-	5d.	—	4d.	—
North Shettleston.	Glasgow.	(b) Levied by Glasgow.	6d.	(f) 8d.	6½d.	4d.
Rutherglen.	Rutherglen.	do.	2d.	(e) 5d.	4d.	4d.
South Lenzie.	Cadder.	3½d.	3½d.	—	2½d.	4½d.
Stepps.	do.	1/-	6d.	—	3½d.	4d.
Glenboig.	do.	—	1/6	—	—	6½d.

NOTES. — (a) The Cadder Water Supply District includes part of Bishopbriggs, Cadder Village, Auchinloch, Mavis Valley, Jellyhill, Stepps, Chryston and Muirhead, Bridgend, Mossvale, Heathfield, Garnkirk, Moodiesburn, Mollinsburn, Gartcosh, and Garnqueen; (b) Glasgow Water is supplied to Budhill, Springboig, Sandyhills, North Mount Vernon, part of Carntyne, Lightburn, Colston, and part of Bishopbriggs, in Glasgow Parish; Auchinairn, in Cadder Parish; and Farme, Eastfield, and part of Burnside, in Rutherglen Parish; (c) Barony Drainage; (d) no assessment for Drainage; (e) Glasgow Sewage Purification rate assessment; (f) Southern portion of District outwith Glasgow Sewage Purification Area.

## NUISANCES.

The following summaries show the number of nuisances dealt with in each parish, and the number of intimations and notices served, &c. :—

	Glasgow.	Cadder.	Rutherglen.	Carmunnock.	Total.
Recurring Nuisances under Section 16, Sub-secs. 2, 5, and 7,	12	30	86	1	129
Structural Nuisances under Section 16, Sub-secs. 3, 4, 6, 8, 9, and 10, - -	5	2	5	—	12
	17	32	91	1	141

Intimations served in terms of Section 19 of the Public Health Act, 1897, - - - - -	141
Notices served in terms of Section 20, - - - - -	2
Notices served in terms of Section 117, of the Burgh Police (Scotland) Act, 1892, - - - - -	32
Notices served in terms of Section 23, of the Burgh Police (Scotland) Act, 1903, - - - - -	54
Notices served in terms of Section 191, of the Burgh Police (Scotland) Act, - - - - -	3
Number of letters calling attention to insanitary conditions in addition to those dealt with by formal intimation, - - - - -	231
Letters issued under the Milk and Dairies (Scotland) Act, 1914, - - - - -	56

In connection with the above statement, 9,326 visits of inquiry and inspection were made for the detection of nuisances and in connection with complaints received, which numbered 102. The majority of nuisances dealt with were, as usual, due to choked or otherwise defective drains.

A complaint was received from two tenants occupying ground-floor houses at the Housing Scheme at Auchinairn regarding an infestation of beetles. The habitation of the beetles was on the gable wall between the two houses. The affected parts were thoroughly sprayed with Solution "D," but as this was carried out towards the end of December we have not yet heard with what result.

A serious complaint was received from Sandyhills district regarding the dangerous condition of a chimney-stalk at a disused colliery. The premises and the adjoining ground were acquired by a scrap-iron merchant, and he had deposited in the vicinity of the stalk about 4,000 tons of scrap iron. The enormous weight had affected the stability of the chimney, and there was a danger of its falling across the London and North-Eastern Railway line, which runs close by. It was impossible to demolish the chimney *en masse* owing to its position, and it was eventually taken down from the top brick by brick.

The keeping of dogs in the houses in the villages of Gartcosh and Glenboig, particularly the last mentioned, is becoming a nuisance, and not at all conducive to good health. There are instances where three or four dogs are kept in houses which are already overcrowded by humans. I feel that this is a matter which should receive some serious consideration.

Further complaint was made during the year regarding the infestation of several of the dwellings in the housing schemes by bugs. Nine houses were sprayed with the Insecticide Solution "D," and skirting boards and picture rails removed, with beneficial results. In two instances the bugs were undoubtedly caused by old pictures bought from second-hand dealers' shops, as it was observed that in both the pictures were the only articles of woodwork affected.

Cuningar coup was again the source of complaint during the year, owing to lack of proper attention and to continuous slight smouldering. However, by constant supervision and writing to the owner, the conditions were greatly improved.

A complaint received from one of the occupiers of a new house in the Bankhead Scheme gave rise to considerable discussion. The walls of the house occupied by complainant were almost continuously in a wet condition, and after extensive examination it was agreed that extreme condensation was taking place, probably largely due to defective plastering. The external walls of the house were stripped and re-plastered, with resultant good, no further complaint being received.

Several observations of smoke pollution were carried out during the year, and smoke charts made delineating the time during which the smoke from the boiler furnaces was at its densest. One particular



factory which has given trouble in recent years is, however, going over to electric power, and in the course of a year will probably cease to trouble the department, in so far as smoke pollution is concerned.

Whilst the ubiquitous choked trap is always with us, there is, at least in this area, evidence of some decrease in this type of nuisance, probably due to the attention given to the cleansing of the back areas by the local scavenger employed for that purpose.

### HOUSE DRAINS.

309 visits were made relative to the condition of house drains and the provision of water-closets, &c. 97 inspections were made of the drainage systems of properties, including visits during work of repair and reconstruction. 6 drainage systems were found defective, all of which were remedied. 9 drainage systems were reconstructed and 20 water-closets provided. 21 applications of the smoke-test were made to the drainage systems in the district.

In accordance with the Department of Health's circular of 17th January, 1927, I submit the following table (1) as to the number of common water-closets in use; (2) number of houses without water supply and sinks inside the house; and (3) number of (a) dry closets, (b) privy-middens, (c) ashpits, showing for each separately the number serving 2, 3, 4, 5, and more tenants respectively:—

### COMMON CLOSES, STAIRS AND WATER-CLOSETS.

In connection with the by-laws relating to the cleansing of closes, stairs and water-closets at tenement properties, 250 inspections were made. 32 notices in terms of Section 117 of the Burgh Police (Scotland) Act, 1892, were issued requiring owners to whitewash closes and staircases, and 50 closes and staircases were whitewashed. 10 date cards were issued to tenants regarding sweeping and washing of stairs. In addition 3 letter and 60 notice warnings were issued regarding improperly fouling and abusing water-closets.

### INFECTIOUS DISEASE.

801 visits of inquiry were made by the Sanitary Officers; the disinfection of 323 apartments and 317 sets of bedding and articles of clothing was carried out. 7 sets of bedding were removed for disinfection and 3 for destruction.



TABLE SHOWING NUMBER OF OCCUPIED HOUSES IN POPULOUS PLACES WITHIN THE DISTRICT AND THE NUMBER OF COMMON WATER-CLOSETS, DRY-CLOSETS, PRIVY MIDDENS, AND ASHPITS SERVING 2, 3, 4, AND 5, OR MORE TENANTS RESPECTIVELY; ALSO THE NUMBER OF HOUSES WITHOUT WATER SUPPLY AND SINK INSIDE THE HOUSE.

580A

1930.	Number of Occupied Houses.	WATER-CLOSETS.							DRY-CLOSETS.							PRIVY MIDDENS.											ASHPITS.										Houses without Water and Sink inside.			
LOCALITY.		Total	2	3	4	5	6	7	Total	1	2	3	4	5	6	7	Total	1	2	3	4	5	6	7	8	12	14	15	Total	1	2	3	4	5	6	8		12		
Rutherglen, ... ..	2207	193	11	168	8	3	—	3	5	5	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	3	2	—	1	—	—	—	—	—	—	18	
Chryston and Muirhead, ...	872	54	13	16	25	—	—	—	2	1	1	—	—	—	—	—	2	1	1	—	—	—	—	—	—	—	—	—	19	16	—	2	—	1	—	—	—	—	2	
Gartcosh, ... ..	645	25	20	—	5	—	—	—	12	—	—	12	—	—	—	—	3	—	—	—	—	—	—	—	—	—	3	—	—	2	2	—	—	—	—	—	—	—	25	
Bishopbriggs and Auchinairn,	1201	59	15	38	6	—	—	—	5	—	2	1	2	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	15	6	—	—	—	9	—	—	—	—	5	
*Carmunnoch, ... ..	257	25	13	9	2	—	1	—	2	1	—	1	—	—	—	—	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	
Stepps, ... ..	782	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
So. Lenzie, ... ..	478	9	4	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	1	5	—	—	—	—	—	
Shettleston, ... ..	1217	34	2	32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Mollinsburn, ... ..	53	—	—	—	—	—	—	—	19	5	10	3	1	—	—	—	10	4	—	2	—	1	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5
Heathfield, ... ..	57	—	—	—	—	—	—	—	14	—	—	—	14	—	—	—	4	—	—	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	56
Mavis Valley and Jellyhill,	250	8	8	—	—	—	—	—	37	—	10	27	—	—	—	—	3	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	93
Glenboig, ... ..	114	4	4	—	—	—	—	—	20	—	5	2	8	1	—	4	10	—	2	1	—	—	—	—	4	1	—	2	2	—	1	—	—	—	—	1	—	—	—	38
TOTALS, ... ..	8133	413	90	270	46	3	1	3	116	12	28	46	25	1	—	4	36	7	3	4	—	2	3	1	6	4	4	2	47	26	1	3	1	15	—	1	—	—	252	

\* Tenants using Bins.





1,303 intimations to parents and school teachers were issued.

The following is a report made regarding certain conditions in the village of Gartcosh, complained of by a residenter during the early part of the year when a number of diphtheria cases were removed to hospital.

.. This village has always been subject to a tendency of periodic outbreaks, and repeated investigations have been carried out, without anything definite ever having been ascertained, with the exception of occasional diphtheria carriers. There is, undoubtedly, quite a large proportion of the school children population subject to throat and tonsillitis troubles.

“The village itself is surrounded by lochs, Johnston Loch on the north, Bishop Loch on the south-west, and Woodend Loch on the south-east. The adjacent farm lands all drain to these lochs, and almost the whole of that encircling low lying area is liable to flood. Johnston Loch on the north side was thought as far back as 1922 to be the cause of some trouble, but after correspondence and visitation and inspection by the Caledonian Railway Company's representative and myself, it was agreed that no nuisance existed here. This was confirmed by the result of analysis of samples of water taken from the sluice end of the loch—which stated that the water contained *little or no organic matter of sewage origin*. At that time I endeavoured to prevail on the Railway Company's representative to have the sluice opened, but whilst admitting that this had not been done for 15 years, it was pointed out that it was not at all a feasible proposition owing to the liability of serious flooding along the out-flow ditch and surroundings. At that time the only drainage flowing to the loch was pre-treated by septic tank and filter.

“The complainant has been misinformed in his statement that crude sewage still discharges to the loch. Crude sewage has not been discharged to the loch for many years, and in September, 1923, all the pre-treated sewage then outflowing to the loch was connected to the new sewers—a Drainage District having been formed in 1920. There is only, to my knowledge, one waste sink which possibly has its discharge to the loch.

“Regarding the complainant's mention of the prehistoric method of scavenging, I am afraid the same method is general throughout the County area in Special Scavenging Districts. The refuse is

removed by a private contractor by motor lorry, and he has been repeatedly verbally warned, and also written to, to take care and cover the refuse during removal. This, you will readily understand, is most difficult to supervise, and the only remedy is a properly covered scavenging vehicle. The cost of this in such a small district is a serious consideration, but despite this, request has been made to the Scavenging Committee in this District, as in others similarly situated, by this department to have a suitable covered vehicle supplied. It is entirely at the discretion of the Local Committee to supply this vehicle, and on every occasion this department endeavours to point out the advantages of it. No later than September, 1929, the Clerk to the Scavenging Committee was written once more to have a closed vehicle supplied, and at the same time the contractor was written to, warning him again to keep his lorry covered as well as possible during the removal of the refuse.

“Since the Drainage District was formed for Gartcosh village in 1920, and a Scavenging District in 1924, both at the urgent and repeated requests of this department, it will be seen that there has been no hesitancy in improving the general conditions of the village and of the inhabitants.

“I might also add that until 1923 the older houses of this village were all on the conservancy disposal system, and there were numerous dry-closets and privy-middens. Our work has been unceasing in removing these, and there are only now the houses at the Brickworks on the conservancy system, it being impossible to supply drainage here. Last year 18 water-closets were supplied, and 9 privies and 3 privy-middens demolished.”

#### OFFENSIVE TRADES.

The number of offensive businesses on the Register at the close of the year was 4. The nature of the businesses comprise the following:—1 soap work at Bishopbriggs; 1 fish meal and manure work at Rutherglen; 1 blood work and 1 tallow and gut work at Carntyne, Shettleston.

57 inspections were made during the year.

The soap work at Bishopbriggs has been very quiet during the year, very little soap being produced.

The blood work has been kept in a satisfactory manner, and no complaints were received.

The tallow and gut work continues to be conducted in a satisfactory manner.

For a number of years now it has been repeated in Annual Reports that by-laws governing the conduct of the fish meal and manure work at Rutherglen were essential. This year I am glad to state that the need for repetition is unnecessary, as I expect that within the first month of next year the works of Messrs. Davidson will have removed to Falkirk. These works have in the past years entailed considerable supervision by this department, complaints of smells being numerous. These complaints would no doubt have been multiplied tenfold if such supervision had not been carried out and advice given as to the most suitable methods of treatment of the obnoxious vapours.

At the end of the year treatment of all white fish had been transferred to Falkirk, but herring and other oily fish were still being dealt with at the factory in Rutherglen.

However, as already stated, it is hoped that before long the whole factory will be dismantled as an offensive business.

#### PUBLIC SCHOOLS.

The schools were visited and the sanitary conveniences found in order.

Two new schools have been erected during the year. The one in Burnside is now opened, and the other at Auchinloch is nearing completion.

4 school apartments were disinfected during the year.

#### PRIVATE STREETS.

In connection with Section 39 of the Public Health (Scotland) Act, 1897, 27 inspections were made of private streets and lanes throughout the year.

The condition of Somerville Street, Cambuslang, was brought to the notice of the proprietors, and several meetings arranged with them to have the street repaired. At the end of the year the matter was still under consideration.



The following private streets were assumed as public highways :—  
*Bishopbriggs*—Cleland Avenue, Auchinairn.

*Rutherglen*—*King's Park*.

Bankhead Road from Kingsheath Avenue to Kingsbridge Drive thence to Kilmore Drive—195 yards.

Kilmore Drive from Montford Avenue to Bankhead Road—1 fur. 40 yards.

Kingsacre Road from boundary of City of Glasgow to Kilmore Drive—1 fur. 163 yards.

Kingsbridge Drive from boundary of City of Glasgow eastwards—2 fur. 166 yards.

Kingsheath Avenue from boundary of City of Glasgow eastwards—2 fur. 123 yards.

Montford Avenue from boundary of City of Glasgow to Cathcart Road—1 fur. 163 yards.

St. Blanes Drive from Kingsbridge Drive to Kilmore Drive—203 yards.

#### RUINOUS BUILDINGS.

The following ruinous or dangerous buildings were dealt with during the year. In terms of Section 191 of the Burgh Police (Scotland) Act, 1892, as applied to the County by Section 10 (2) of the Local Government (Scotland) Act, 1892 :—

*SHETTLESTON*.—Three houses at Nos. 4, 5, and 6 Albany Gardens, Springboig. The properties were affected by underground workings and had become dangerous. After the service of notices on the respective owners the properties were demolished and debris removed from the site.

#### FACTORIES AND WORKSHOPS.

No communications were received from H.M. Inspector of Factories during the year. 60 visits were made to factories and 13 to workshops. Inspections were made of sanitary conveniences which were generally found in good order.

Note of 1 outworker was received from another Local Authority.

3 workshops were registered during the year and 6 removed from the register.

The register of Workshops at the end of the year contains the following in each parish:—Glasgow, 1; Cadder, 57; Rutherglen, 9; Carmunnock, 7; classified as follows:—

Dressmakers and Tailors, - - -	2
Boot and Shoe Repairers, - - -	16
Blacksmiths, - - - - -	4
Joiners, - - - - -	11
Painters, - - - - -	3
Plumbers, - - - - -	11
Slaters, - - - - -	4
Builders, - - - - -	4
Bakehouses, - - - - -	2
Garages, - - - - -	10
Concrete Block Manufacturers, - -	1
Paint and Varnish Manufacturers, -	1
Laundry, - - - - -	1
Miscellaneous, - - - - -	4
	<hr/>
	74
	<hr/>

#### DAIRIES AND COWSHEDS.

The number of cowkeepers and dairymen on the register at 1st January, 1930, was 142, and on the register at 31st December, 1930, 151. The total comprises the following:—Producers, 68; producers and retailers, 21; retailers, 62.

143 inspections were made of dairy premises during the year in connection with repairs and general cleanliness of premises. Most of the farm premises are kept clean and in good order.

A number of dairy farms were reconstructed and repaired during the year to conform to the by-laws.

In the two instances referred to in last year's report, where great difficulty was experienced in having the necessary repairs carried out, arrangements were come to with the owners to have the alterations completed within six months. Whilst neither of those two premises are yet registered, a certain amount of repair work has been carried out, and it is hoped that the premises will be fit for registration at an early date.

With reference to the practice of keeping milk coolers in the milk scullery, in one instance only has a farmer not complied strictly with instructions, but he has been warned that if the contravention is again observed further action will be taken.

A new byre was constructed at Gartloch Home Farm in accordance with the requirements of the dairy by-laws.

TABLE OF PREMISES REGISTERED AND PROVISIONALLY REGISTERED  
AT THE END OF THE YEAR.

(a) Number of cowkeepers and dairymen within the district, -	151
(b) Number granted registration, - - - - -	139
(c) Number provisionally registered, - - - - -	12
(d) Number of byre premises, - - - - -	90
(e) Number registered. - - - - -	78
(f) Number provisionally registered, - - - - -	12
(g) Number not in need of repair and registered, - - - - -	14
(h) Number of premises where repairs were carried out and premises registered, - - - - -	64
(i) Number of premises where necessary repairs have been arranged, - - - - -	11
(j) Number of premises where proceedings are pending for additional requirements to be carried out, failing which registration will not be granted, - - - - -	1

Premises where repairs have been carried out, with notes of work done, during the year 1930:—

*Huntershill Farm, Bishopbriggs—*

Two additional 12-feet by 1-foot 6-inch Findlay ridge ventilators.

New dungstead.

*Crofthead Farm, Bishopbriggs—*

Two additional 6-feet by 1-foot 6-inch fixed lights at ridge.

Milkhouse walk and floor reconstructed.

New milk scullery.

*Easter Lumloch Farm, Bishopbriggs—*

## No. 1 Byre—

Fixed light at ridge, with 2-inch permanent ventilation opening, 42 feet 6 inches by 3 feet.

Thirteen 8-inch by 7-inch air inlets on wall.

## No. 2 Byre—

Fixed light at ridge, with 2-inch ventilation opening, 41 feet by 3 feet.

Thirteen 8-inch by 7-inch air inlets on wall.

*South Crosshill Farm, Bishopbriggs—*

Fixed light at ridge, with 2-inch permanent opening, 55 feet by 2 feet 6 inches.

Eight 8-inch by 7-inch air inlets on wall.

New floor in byre.

New floor in milkhouse.

*Cleddens Farm, Lenzie—*

Two additional rooflights, 10 feet by 2 inches and 2 feet by 1 foot 6 inches.

Walls beam filled.

Nine 8-inch by 7-inch air inlets on wall.

*Loch Farm, Lenzie—*

Fixed light at ridge, 105 square feet.

Fourteen 8-inch by 7-inch air inlets on wall.

Walls beam filled.

Byre roof re-slatted.

*Auchingree Farm, Stepps—*

Findlay ridge ventilator, 18 feet by 2 feet 6 inches.

Eleven 8-inch by 7-inch air inlets on wall.

*Healthfield Farm, Chryston—*

## No. 1 Byre—

Nine 6-inch wall inlets and two lengths of Findlay ridge ventilator, each supplying 20 square feet of glass.

Walls cement faced.

## No. 2 Byre—

Ten 1-foot 2-inch by 4-inch wall inlets.

Walls cement faced.

Wood trevisses removed and cement trevisses supplied.

*Adamswell Farm, Mollinsburn—*

Ridge ventilator, with 20-square-feet glass provided.

*Cawdercuilt Farm, Maryhill—*

Fixed light at ridge, with 2-inch permanent ventilation opening, 105 feet by 3 feet.

*Waterbank Farm, Carmunnock—*

Eight 7-inch by 8-inch inlets provided; and

Three Turner outlet ventilators, with 20-square-feet glass.

*Windlaw Farm, Carmunnock—*

Eleven 1-foot 2-inch by 4-inch wall inlets provided; and

Findlay ridge ventilator supplying 53-square-feet glass.

## SEASONAL WORKERS.

One application was received to house male and female workers for potato-lifting. The premises being conform to the by-laws, the application was granted.

## PIGGERIES.

The number of piggeries on the register at 31st December, 1930, was 28, and the approximate number of pigs in the district, including those at farm steadings and public institutions, 2,821.

92 inspections were made of premises during the year.

The premises generally were kept clean and in good order.

A plan for an extension of a piggery at Cranhill, Shettleston, was approved by the Committee, and completed during the year.

Mention was made in last year's Report of a complaint regarding piggery smells from tenants adjoining a piggery at Mossvale, Chryston. Complaint was again received during the year, but there does not appear to be anything which can be done in the matter, other than keeping the piggery under regular observation and having the manure removed regularly. Of the five adjoining householders only two make complaint, the others have stated that they find no reason for any serious complaint.

### TENTS AND VANS.

32 inspections were made of tents and vans during the year.

During the summer months a portion of ground near the village of Moodiesburn was let by a farmer as a camping ground. This was occupied during the whole of July and August by eight families in tents. These were regularly inspected and were kept in splendidly clean order, the occupants having a sense of hygiene above that of the usual type of camper found in such districts.

A complaint in the early part of the year was received regarding two families who had taken up residence, one in a railway carriage and the other in a railway van, near Garthamloch Farm, Stepps. The vans were formerly used as stores by a company who had the lease of a quarry in the vicinity. When the lease expired the vans were taken over by a farmer, who let them. After considerable correspondence the tenants eventually removed, and the farmer was instructed that the vans were on no account to be used for human habitation.

### BURIAL GROUNDS.

1 inspection was made of a burial ground in the district, which was found in order.

4 burials were carried out in terms of Section 69 of the Public Health (Scotland) Act, 1897.

JOHN B. PHILIP,  
*Sanitary Inspector.*



**STATEMENT BY THE SANITARY INSPECTOR OF PROCEEDINGS  
UNDER THE PUBLIC HEALTH ACTS, 1897, HOUSING &c.,  
(SCOTLAND) ACTS, 1909 TO 1928, AND OTHER ACTS,  
DURING THE YEAR 1930.**

**Nuisances.**

Complaints received (verbal and written), ... ..	102
Visits of inquiry and inspection, ... ..	9,326
Intimations served in terms of Section 19 of Public Health Act,	141
Notices served in terms of Section 20 of Public Health Act, ...	2
Insanitary conditions dealt with by letter (letters issued), ...	231
Number of recurring nuisances dealt with by intimation, ...	129
Number of structural nuisances dealt with by intimation, ...	12
Nuisances abated, ... ..	139

**Infectious Disease.**

Visits of inquiry, &c.,... ..	801
Apartments disinfected by Sanitary Inspectors and Health Visitors,	323
School apartments disinfected, ... ..	4
Bedding and articles of clothing disinfected by Sanitary Inspectors and Health Visitors, ... ..	317
Bed and bedding removed for disinfection, ... ..	7
Bedding, &c., removed for destruction, ... ..	3
Intimations to parents and school teachers, ... ..	1,303
Throat and Nose Swabs taken, ... ..	33

**Factories and Workshops.**

Factory inspections, ... ..	60
Workshop inspections, ... ..	13
Workshops registered during the year, ... ..	3
Removed from register, ... ..	6

**Cowsheds and Dairies.**

Number on Register at 1st January, 1930, ... ..	142
Registered during the year, ... ..	10
Removed from Register, ... ..	1
Inspections of dairy premises, ... ..	143
Letters to registered occupiers and owners, ... ..	56

**Offensive Trades.**

On Register at 1st January, 1930, ... ..	5
Applications for sanction to establish, ... ..	—
Removed from Register, ... ..	1
On Register at 31st December, 1930, ... ..	4
Inspections, ... ..	57
Contraventions dealt with, ... ..	7
Letters to owners, ... ..	7

**Drainage.**

Visits <i>re</i> condition of house drains, ... ..	293
Drain inspections, ... ..	97
Defective drains disclosed, ... ..	6
Defects remedied, ... ..	6
Defective Drainage systems remedied or reconstructed, ... ..	9
Applications of smoke-test, ... ..	21
Number of properties tested, ... ..	12
Visits <i>re</i> provision of water-closets, ... ..	16
New water-closets provided, ... ..	20
Connections to public sewers, ... ..	18
Inspections of connections, ... ..	17
Connections to private sewers, ... ..	9
Inspections of connections, ... ..	8
Inspections of Sewage Purification Works, ... ..	170
Visits <i>re</i> ditch cleansing, ... ..	6
Sewer cleansing inspections, ... ..	8
Sewer inspections <i>re</i> defects or chokages and surcharging, ... ..	30

**Building By-Laws.****New Buildings, Alterations, Additions, &c.**

Number of plans lodged, ... ..	42
Number of plans approved, ... ..	42
Inspections of new buildings, alterations, additions, &c., by Building Inspector, ... ..	1,911
Applications of smoke test to drains and plumber work, ... ..	185
Number of properties tested, ... ..	225
Houses passed for occupancy, ... ..	182

**District Committee's Housing Schemes.**

Visits by Building Inspector <i>re</i> progress of works, formation of roads, construction of sewers, &c., ... ..	14
---	----

**Housing, &c. (Scotland) Acts, 1909 to 1928.**

Number of dwelling houses inspected (includes 56 secondary inspections),	...	...	...	...	...	230
Houses considered unfit for human habitation,	...	...	...	...	...	150
Notices served under section 3 of 1925 Act,	...	...	...	...	...	22
Representations made to Local Authority,	...	...	...	...	...	19
Houses for which Closing Orders were made,	...	...	...	...	...	19
Houses closed (voluntarily),	...	...	...	...	...	2
Houses in which defects were remedied by owners,	...	...	...	...	...	22
Houses in which defects were remedied by Local Authority,	...	...	...	...	...	1

**Housing (Rural Workers) Act, 1926.**

Number of dwelling houses inspected,	...	...	...	...	...	53
Dwelling houses reconstructed,	...	...	...	...	...	3
Applications for grant,	...	...	...	...	...	8
Applications approved and Certificate "A" issued,	...	...	...	...	...	7

**Miscellaneous.**

Cemeteries—Inspection of burial ground,	...	...	...	...	...	1
Visits <i>re</i> applications for burial,	...	...	...	...	...	3
Burials in terms of Section 69 of Public Health Act,	...	...	...	...	...	4
Pig-styles:—						
Number on Register at 31st December, 1930,	...	...	...	...	...	28
Inspections,	...	...	...	...	...	92
Approximate number of pigs in district at 31st December, 1930,	...	...	...	...	...	2,821
Tents and Vans—Inspections,	...	...	...	...	...	32
Fish and Chip Shops—Inspections,	...	...	...	...	...	8
Visits to premises alleged to be infested with rats,	...	...	...	...	...	25
Rat poison supplied,	...	...	...	...	...	4
House-to-house visits for the detection of dirty or overcrowded houses,	...	...	...	...	...	305
Visits <i>re</i> verminous houses,	...	...	...	...	...	37
Houses sprayed with "Insecticide,"	...	...	...	...	...	11
Refuse Cops—Inspection,	...	...	...	...	...	93
Visits <i>re</i> water supplies,	...	...	...	...	...	7
Sample of water taken for analysis,	...	...	...	...	...	1
Visit <i>re</i> housing of seasonal workers,	...	...	...	...	...	1
Common closes, stairs, and water closets—Inspections,	...	...	...	...	...	250
Date Cards issued,	...	...	...	...	...	10
Notices to owners in terms of section 191 of Burgh Police Act,	...	...	...	...	...	3

Notices to owners in terms of Section 117 of Burgh Police Act, ...	32
Closes and stair walls whitewashed, ... ..	50
Notice and letter warnings <i>re</i> improperly fouling water closets, and back areas, ... ..	63
Private streets and lanes—Inspections, ... ..	27
Smoke observations, ... ..	5
Scavenging—	
Inspections in Special Districts, ... ..	7,161
Notices served under Section 23 of Burgh Police Act, ... ..	54
Dustbins provided and renewed, ... ..	79
Notices posted and letter warnings <i>re</i> improperly fouling ashbins,	24
Notice warnings <i>re</i> garden refuse in lanes, ... ..	12

# LIGHTBURN JOINT-HOSPITAL.

## Annual Report.

*Resident Physician*—H. MUIR DAVIE, M.B., Ch.B.

*Matron*—Miss TOWNSEND, R.R.C.

The admissions and discharges during the year, classified according to the disease notified, and to constituent authority, are shown in Table A and Table B respectively.

TABLE A.

Disease.	In Hospital 1st Jan., 1930.	Admitted.	Discharged. Recovered.	Died.	In Hospital. 31st Dec., 1930.
Scarlet Fever, ...	30	328	306	—	52
Diphtheria, ...	22	184	183	4	19
Pneumonia, ...	23	147	121	28	21
Erysipelas, ...	1	15	15	1	—
Tuberculosis, ...	11	34	34	10	1
Puerperal Sepsis, ...	1	9	7	3	—
Cerebro-spinal Meningitis, ...	—	6	3	2	1
Ophthalmia Neonatorum, ...	—	3	3	—	—
Whooping Cough, ...	—	1	—	1	—
Measles, ...	—	8	8	—	—
Enteric Fever, ...	—	5	4	1	—
Other Diseases,* ...	2	10	12	—	—
	90	750	696	50	94

\*Eczema, 1; Encephalitis, 1; Enteritis, 1; Mumps, 1; Scabies, 5; Varicose Ulcer, 1.

TABLE B.

Cases Classified according to constituent authority.

Disease.	Lower Ward, Lanark.	Middle Ward, Lanark.	City of Glasgow
Scarlet Fever, ...	155	101	72
Diphtheria, ...	113	41	30
Pneumonia, ...	50	60	37
Erysipelas, ...	8	4	3
Tuberculosis, ...	33	1	—
Puerperal Sepsis, ...	7	2	—
Cerebro-spinal Meningitis, ...	5	—	1
Ophthalmia Neonatorum, ...	3	—	—
Whooping Cough, ...	1	—	—
Measles, ...	4	4	—
Enteric Fever, ...	4	1	—
Other Diseases, ...	10	—	—
	393	214	143

Compared with last year's returns, there was an increase in the total number of cases admitted, due mainly to an increase in the numbers of scarlet fever and diphtheria cases, the figures for other diseases remaining fairly constant.

At the beginning of the year there were 90 cases in residence. The number of admissions was 750, making a total of 840. Of these, 696 were discharged well, and 50 died, leaving 94 cases in hospital at the end of the year.

Of the 50 deaths, 6 died within twenty-four hours of admission, and have been excluded in calculating the fatality rate. The figures, thus corrected, give a fatality rate of 5.9 per cent., as compared with 5.5 per cent. for the previous year.

The average monthly rate of admission was 62.5, the lowest number of admissions occurring in August and the highest number in October, the figures being 46 and 95 respectively.

The average daily number of patients resident was 87, the highest number in residence being 113 on 11th December, and the lowest number 62 on 30th August.

Throughout most of the year the hospital was distinctly overcrowded and there was felt a decided lack of accommodation for the isolation of doubtful cases and of cases of mixed infection. A pavilion built on the cubicle system would facilitate the work of the hospital considerably.

The urgent need of beds for cases of acute infectious disease in the latter part of the year rendered necessary the dismissal of the tuberculosis patients. These were distributed throughout the County sanatoria.

### **Scarlet Fever.**

30 cases were in hospital at the beginning of the year. The number of cases admitted was 328, of whom 306 were discharged well, leaving 52 cases in residence at the end of the year. There were no fatal cases throughout the year.

The average duration of residence was, in mild cases, 35 days; in severe cases, 66 days.

REVISED DIAGNOSIS.—The diagnosis was revised in 8 cases, as follows:—Measles, 4; influenza, 1; rhinitis, 1; negative, 2.



**TYPE OF DISEASE.**—The disease proved generally to be of a more severe type than in recent years. Of the 298 true cases discharged, 187 were classified as mild, 102 as moderately severe, and 9 as very severe. Of the last group, 2 cases were of the septic type.

**COMPLICATIONS.**—32 per cent. of the cases discharged had one or more complications, as follows :—

*Glands.*—39 cases, or 13 per cent., had glandular enlargement. In 3 cases suppuration resulted.

*Ear.*—20 cases, or 6.6 per cent., developed otitis media. In 2 of these mastoiditis resulted, requiring mastoidectomy. 1 case was discharged with the ear still moist.

*Nose.*—27 cases, or 9 per cent., developed rhinitis.

*Joints.*—6 cases, or 2 per cent., developed arthritis.

*Kidneys.*—2 cases, or .66 per cent., had true nephritis. There were 5 cases of mild albuminuria.

*Heart.*—3 cases had functional heart murmurs and 3 cases arrhythmia. No organic lesions were detected.

*Serum Rashes.*—Occurred in 5 cases.

**OTHER CONDITIONS PRESENT.**—Blepharitis, 1; cellulitis, 1; jaundice, 2; scabies, 1; tonsillitis, 1; paronychia, 4.

**MIXED INFECTIONS.**—Chickenpox, 19; diphtheria, 7; measles, 12.

### Diphtheria.

22 cases were in hospital at the beginning of the year. 184 cases were admitted, 183 discharged, and 4 died, leaving 19 cases in residence at the end of the year.

The average duration of residence of recovered cases was 50 days, and of fatal cases, 3 days.

**TYPE OF DISEASE :—**

**BACTERIOLOGICAL.**—16 cases in which the organism had been recovered from the throat, presented no clinical symptoms.

## FAUCIAL—

*Mild.*—63 cases were of a mild type. The average amount of antitoxin given was 8,000 units.

*Complications.*—Adenitis, 1; albuminuria, 1; arrhythmia, 7; serum rashes, 2.

*Moderate.*—72 cases were of a moderately severe type. The average amount of antitoxin given was 20,000 units.

*Complications.*—Adenitis, 4; albuminuria, 3; arrhythmia, 21; otitis media, 1; serum rashes, 13; tonsillitis, 2.

*Severe.*—10 cases, including 2 fatal cases, were of a severe type. The average amount of antitoxin given was 50,000 units.

*Complications.*—Arrhythmia, 4; otitis media, 1; palatal paresis, 2; serum rashes, 2; tonsillitis, 1.

LARYNGEAL.—In 4 cases the larynx alone was involved, while in 6 cases the fauces also were affected. 1 of the latter died. The average amount of antitoxin given was 28,000 units.

*Complications.*—Otitis media, 1.

*Tracheotomy.*—In 4 cases the stenosis was so severe as to require tracheotomy; 1 of these died from cardiac failure.

FAUCIAL AND NASAL.—In 8 cases, including 1 fatal case, the fauces and nose were involved. These cases received an average of 32,000 units antitoxin.

*Complications.*—Arrhythmia, 2; otitis media, 1; serum rash, 1; suppurative adenitis, 1.

ALTERED DIAGNOSIS.—Laryngitis, 1; measles, 1; pneumonia, 1; scarlet fever, 1; sore throat, 1; tonsillitis, 3.

OTHER CONDITIONS PRESENT.—Burn, 1; bronchial catarrh, 12; epilepsy, 1; jaundice, 1; impetigo, 1; ophthalmia, 1.

FATAL CASES.—Of the fatal cases, 2 were faucial, 1 nasal, and 1 laryngeal. The average period of residence was 3 days. 2 of these cases were admitted moribund. The average amount of antitoxin administered was 41,000 units.

ANTITOXIN.—9 cases, or 4.8 per cent. of discharges, had antitoxin before admission to hospital.

MIXED INFECTIONS.—Scarlet Fever, 4; measles, 4.

### Pneumonia.

23 cases were in hospital at the beginning of the year. 147 cases were admitted, of which 22 were wrongly diagnosed. 121 cases were discharged well and 28 died, leaving 21 cases in residence at the close of the year.

CLASSIFICATION. — Lobar, 80; lobular, 42; influenzal, 4; unresolved, 1.

THE FATALITY RATE calculated on discharges was 17·4 per cent.

COMPLICATIONS.—Albuminuria, 2; empyema, 6; enteritis, 1; jaundice, 1; laryngitis, 1; otitis, 2; peritonitis, 1; pleurisy with effusion, 2; residual abscess, 1.

OTHER CONDITIONS PRESENT.—Measles, 7; whooping-cough, 6.

CORRECTED DIAGNOSES.—Appendicitis, 1; bronchitis, 4; bronchial catarrh, 3; enteritis, 1; laryngitis, 1; influenza, 5; pleurisy with effusion, 2; pulmonary tuberculosis, 4; tuberculous meningitis, 1.

### Erysipelas.

1 case was in residence at the beginning of the year. 15 cases were admitted, 15 were discharged well, and 1 died, leaving no cases in hospital at the end of the year.

THE AVERAGE AGE was 37 years.

THE AVERAGE DURATION OF RESIDENCE was 23 days.

FATAL CASE.—This was a man of 68 years who had the wandering type of disease.

SITUATION OF DISEASE.—Face, 8; leg, 1; face and scalp, 3.

CORRECTED DIAGNOSIS.—Impetigo, 1; sycosis, 1; urticaria, 1.

### Tuberculosis.

11 cases were in residence at the commencement of the year. 34 cases were admitted, 34 discharged, and 10 died, leaving 1 case in hospital at the end of the year.

**FATAL CASES.**—8 of these were pulmonary. The average age was 30 years. 3 of these were of the acute and 5 of the chronic type. Of the other 2 fatal cases, 1 was meningeal and 1 proved on post-mortem examination to be a case of cerebral abscess.

**DISCHARGES.**—34 cases were discharged, classified as follows :—

Pulmonary—13 cases improved.

3 cases I.S.Q.

3 cases worse.

Glandular—2 cases cured.

3 cases improved.

Bones and Joints—3 cases improved.

1 case I.S.Q.

Abdomen—1 case improved.

Skin—1 case improved.

**ALTERED DIAGNOSIS.**—Asthma, 1; cerebral abscess, 1; empyema, 1; endocarditis, 1.

**X-RAY.**—5 cases were sent to County Hospital, Motherwell, for X-ray examination. All were positive.

**THE AVERAGE STAY IN HOSPITAL** was over 3 months.

The mercury vapour lamp again proved of great benefit in non-pulmonary cases.

During the winter months, several enjoyable entertainments were greatly appreciated by the patients.

### **Puerperal Sepsis.**

1 case was in hospital at the beginning of the year. 9 cases were admitted; 7 cases were discharged well; 3 cases died, of whom one was wrongly diagnosed. This left no cases in residence at the end of the year.

**RECOVERED CASES.**—Of the 7 recovered cases, 6 were found to be suffering from sapræmia, and cleared up with local treatment. The remaining case was one of pyæmia which ran a prolonged course of four months, abscesses forming in different parts of the body and necessitating drainage.

**FATAL CASES.**—2 of the fatal cases were of the septicæmic type. 1 of these was admitted moribund, and the other died of septic pneumonia after 21 days' residence. The other fatal case notified as puerperal sepsis proved to be one of pulmonary tuberculosis.

**COMPLICATIONS.** — Abscesses, 1; mastitis, 1; pneumonia, 1; suppurative arthritis, 1.

**ALTERED DIAGNOSIS.**—P. tuberculosis, 1.

### **Cerebro-Spinal Meningitis.**

No cases were in hospital at the beginning of the year. 6 cases were admitted, in none of which the diagnosis was confirmed. Of these, 3 cases recovered and 2 died, leaving 1 case in hospital at the end of the year.

**FATAL CASES.**—The 2 fatal cases proved to be suffering from tuberculous meningitis.

**ALTERED DIAGNOSIS.**—Malnutrition, 1; pneumonia, 1; tuberculous meningitis, 2; negative, 1.

### **Ophthalmia Neonatorum.**

3 cases were admitted throughout the year. All made good recoveries, no damage to the eyes resulting.

In all cases the condition was gonococcal, and both eyes were affected on admission.

### **Measles.**

8 cases were admitted during the year. All were discharged well.

**TYPE OF DISEASE.**—6 cases were mild and uncomplicated. 2 cases were severe and developed pneumonia.

**COMPLICATIONS.**—Enteritis, 1; pneumonia, 2.

### **Encephalitis Lethargica.**

1 case was admitted during the year, a woman of 27 years. Investigation proved negative, and the symptoms which had led to the diagnosis did not recur while the patient was in hospital.

### Enteric Fever.

Of the 5 cases admitted during the year, 4 were discharged well and 1 died, leaving no cases in residence at the end of the year.

REMOVAL TO HOSPITAL was carried in the second week of disease in 3 cases and in the third week in 2 cases.

THE AVERAGE DURATION OF RESIDENCE was 37 days.

FATAL CASE.—This was a woman of 28 who died at end of the third week in the typhoid state.

TYPE OF DISEASE.—In 2 cases the blood test was positive for B. typhosus, in 2 cases for B. paratyphosus B. 2 of the cases were severe.

### Other Diseases.

The remaining cases discharged were as follows:—Enteritis, 1; mumps, 1; skin disease, 8; varicose ulcer, 1; whooping-cough, 1.

### Ambulance Work.

	Miles.
Admissions, ... ..	5,962
Dismissals, ... ..	2,843
Other runs, ... ..	1,733
Total mileage, ... ..	10,538

### Grounds and Buildings.

Nothing of note was carried out during the year. Many parts of the brickwork of the buildings and boundary walls require pointing and all the outside woodwork requires repainting.

### Staff.

The staff at the end of the year comprised 1 resident physician, 1 matron, 5 sisters, 2 staff nurses, and 21 probationer nurses. In addition there were 1 cook and 15 maids.

The outdoor staff comprised 1 staff foreman, 2 stokers, 1 chauffeur, and 1 gardener.

The health of the staff throughout the year was satisfactory.







COUNTY OF LANARK

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MILK AND DAIRIES (SCOTLAND) ACT, 1914

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# County Veterinary Inspector's Report

FOR THE

COUNTY OF LANARK

AND

THE BURGHS OF BIGGAR AND LANARK

FOR THE YEAR 1930

To—

THE DEPARTMENT OF HEALTH FOR SCOTLAND.

THE COUNTY COUNCIL OF THE COUNTY OF LANARK.

THE TOWN COUNCIL OF THE BURGH OF BIGGAR.

THE TOWN COUNCIL OF THE BURGH OF LANARK.

MY LORDS AND GENTLEMEN,

I have the honour to submit the Fifth Annual Report of the work done by the Veterinary Department of the County of Lanark under the Milk and Dairies (Scotland) Act, 1914, for the year 1930.

This Report has been compiled in accordance with the instructions set out on pages 5 and 6 of Circular No. 11, 1929, issued by the Department of Health for Scotland, of date 27th December, 1929.

### **(a) Review of the Year's Work.**

#### **(1) ANY MATTER OF OUTSTANDING GENERAL INTEREST.**

##### *Foot-and-Mouth Disease.*

No case of foot-and-mouth disease occurred in the County during the year, nor was any suspected case reported.

##### *Anthrax.*

During the year 15 outbreaks of Anthrax occurred, involving 16 animals, viz. :—10 dairy cows, 1 bull, 3 bullocks, and 2 animals under 3 years of age. This is the lowest record in the past twenty years, and, as the operation of the Diseases of Animals (Lanarkshire) Order, 1907, provides us with a finer sieve for the detection of cases than the Anthrax Order itself, it is presumed that there were no undetected cases. It is satisfactory to note that stockowners in the County refrain more and more from handling, moving, or bleeding any suspected carcase.

All cases reported to us receive our immediate attention, the diagnosis being made on the spot. By the immediate use of disinfectants and the speedy removal of the carcase in our special box for destruction

under steam pressure at Omoa Knackery, the danger of human infection from this communicable and very fatal disease, the spread of infection in the herd, and the possibility of contamination of the milk supplies are practically eliminated. No case of Anthrax in the human subject traceable to an outbreak in cattle has been known in the County for over twenty years, nor has the Ministry of Agriculture and Fisheries in any case during that time failed to corroborate our diagnosis. I need not repeat the remarks contained in my last report regarding the disposal of the last milk drawn from dairy cows that have died of Anthrax. In no outbreak during the year was there the slightest suspicion that the dairy produce of any of the herds involved had become infected.

## (2) ANY PARTICULAR QUESTION OF INTEREST OR IMPORTANCE.

It was unfortunate that the Milk Agency or Pool, which was started in the South-west of Scotland under auspicious circumstances three-and-a-half years' ago to safeguard the interests of milk producers and afford a proper control of the distribution of supplies, began to falter in well-being during the fall of the year. This had the effect of materially reducing the price per gallon received by milk producers in the Western Counties, and especially those who were in the Milk Pool during the later months of the year.

The inadequate returns received inevitably compelled the majority of producers to reduce the use of imported concentrated foodstuffs and feed their animals mainly on home-grown materials, and it was fortunate that the crops of 1930 were above the average. The influence of this less expensive method of feeding dairy cows was reflected in a lessened production of milk, but nevertheless the quantity available seemed to be sufficient to meet the public demand.

(See also other sections of the Report.)

## (3) ANY ADMINISTRATIVE DIFFICULTIES WHICH THE INSPECTOR HAS ENCOUNTERED.

We met with no outstanding administrative difficulty during 1930. The minor problems, which all Veterinary Inspectors experience at the hands of a few stockowners, who are intolerant of supervision, are not worthy of special comment.

On occasion, we have been denied the right to inspect a herd on the plea of the owner that he feared the possibility of our conveying abortion infection to his herd from some infected herd in the district. Though this objection is untenable, one has sympathy for the views of an anxious stockowner, and the difficulty is usually overcome by arranging to inspect his herd before any other on a later date.

**(b) A Statement of the Extent to which the Veterinary  
Inspector has been able to overtake—**

**(1) THE STATUTORY INSPECTIONS OF CATTLE IN REGISTERED DAIRIES  
AT THE INTERVALS PRESCRIBED IN THE REGULATIONS GOVERNING  
HIS DUTIES.**

The routine veterinary inspection of all registered dairy herds within the County and the Burgh of Lanark was carried out during 1930.

As heretofore, the work was limited to a single visit of inspection per annum, and the work was carried out by my Assistant and myself, with some help in two northern parishes from a private Veterinary Surgeon. For one reason or another, upwards of one hundred herds were inspected twice and a few three times during the year. These inspections did not include graded herds, which are dealt with under special regulations.

It is satisfactory to report that the year 1930 marks the end of the period requiring only one veterinary inspection per annum of all registered herds in the County. Acting on a comprehensive report submitted by the County Medical Officer, the County Council agreed that all registered herds should be inspected three times a year from 1st January, 1931, and to that end they appointed two additional temporary whole-time assistants, whose duties are to be confined to the routine inspection of dairy herds. They entered the service in the last week of the year, which gave them the opportunity of being initiated in the work before the new year began.

As it was apparent that the routine clerical work of the Department would be greatly increased by the new regulations, additional assistance had to be obtained in the Veterinary Department Office.

(2) THE INSPECTION OF CATTLE ON PREMISES WHICH ARE NOT REGISTERED DAIRIES, BUT FROM WHICH MILK IS SOLD IN SMALL QUANTITIES.

As before, I have to repeat that, so far as known, we inspected all such cattle, and also, in most instances, the single cow of shepherds and other individuals, who keep such for their own use and sell no milk. This work is worth while, inasmuch as the danger to the consumer is greatly accentuated if the single source of milk supply to a family is a diseased cow.

(c) Observations on—

(1) THE GENERAL CONDITIONS AND CLEANLINESS OF CATTLE IN THE DISTRICT.

I have again to report increased evidence of improvement in the methods and equipment of milk producers in the County, although it must be admitted that a certain few are careless of their obligations to a degree, and if our advice, so often repeated, proves unavailing under the increased visits and admonitions of the future, outstanding cases will be specially reported to the County Medical Officer for his consideration.

There are still many dairy byres in the County so congested and defective that the cows are inevitably soiled with excreta whatever precautions the owner may take, but doubtless it is not an easy matter to get the necessary structural alterations carried out in many of these premises. In my last Report I made full reference to expedients to be adopted in such cases to facilitate clean milk production.

During 1930 a dozen or more dairymen installed one form or another of a device comprising essentially a taut wire suspended at a height of about 15 inches above the anterior edge of the grip to prevent cows from standing back in the grip—a habit especially common in congested, defective, and ill-ventilated byres, which begets soiling of the back of the stall and of the hind parts of the cow when she is recumbent. The best type of the apparatus serves its intended purpose very well, but it is not beyond criticism.

Speaking generally, the dairy herds of the County are well and wisely fed, and the animals are in good condition of body.

We met with only one case wherein it was evident that the few cows in the herd were underfed, and we have reason to believe that



better rations will be provided in future. This herd will receive our special attention, and we will act in accordance with its needs.

When we note the least sign of loss of flesh in any cow, we endeavour to precise the cause, occasionally such a case being found to be the victim of some form of tuberculosis amenable to the Tuberculosis Order, and requiring to be dealt with thereunder.

## (2) THE NATURE OF THE FODDER AND DIET AS AFFECTING THE QUALITY OF THE MILK.

No case came to our notice wherein the quality of the milk was adversely influenced by the diet, and it is undoubtedly true that dairymen are increasingly alive to the need for feeding green roots and their "shaws" to dairy cows after instead of before the milking period to avoid tainting of the milk.

In my last Report I indicated that upwards of 281 byres were equipped with water-bowls from which the animals drink at their convenience. The number of installations is now over 300, and the likelihood is that the movement will continue to develop, as costs have fallen materially, and no recently added equipment in the dairy byre has been fraught with so much advantage alike in the maintenance of the health of cows, the reduction of work, the elimination of costs of fuel, &c.

In almost every instance of byre reconstruction water-bowls have been put in, and invariably their advantage is acknowledged.

## (3) THE NUMBER OF DISEASED COWS FOUND (SPECIFYING THE DISEASE—EXCLUDING TUBERCULOSIS).

(Reference should be made to the statement of abnormal conditions of the udder encountered under Table II.)

We have not yet attempted to assess the number of cows in dairy herds that are the subject of such diseases as Contagious Abortion, Septic Metritis, Retention of the Fœtal Membranes, Johne's Disease, Dysentery, Transient Diarrhœa, Ringworm, Redwater, Acetonæmia, Suppurative Conditions of the Feet and Limbs, &c. All such cases are dealt with on their merits, and in many cases the owner is advised to seek the service of his private Veterinary Surgeon. We endeavour to secure the immediate isolation of most of these cases, but very few farms have suitable isolation premises, and the owner usually

protests that every stall is occupied. On that account, it is not uncommon to find quite a variety of infectious cases in the byre, although, fortunately, not all of them are a menace to the production of wholesome milk.

In my last Report I drew attention to the Public Health aspect of Contagious Abortion in cattle in view of the evidence accumulating elsewhere — especially in America — that the milk of cows affected with Contagious Abortion was the cause of an increasing number of cases of Undulant Fever in man. Contagious Abortion is very prevalent in Lanarkshire, and as the bacillus that causes the disease is excreted in the milk, the udder being one of its favourite locations, it is surprising that even now the evidence of Undulant Fever is conspicuous by its absence.

No case of Cow-pox was encountered in 1930. It was reported by the County Medical Officer that a female milker had been removed from a farm to a County Hospital suffering from an ill-defined sore on a finger, which it was suspected might be variolous in character, as it was known that several of the cows in the herd were suffering from teat eruptions. On visiting the farm, I found the teats of several cows to have ordinary sores that, in my opinion, were caused by exposing the animals unduly in inclement weather while untimely repairs were being carried out in the cow-shed.

#### (4) THE MANNER IN WHICH MILK FROM DISEASED COWS IS DISPOSED OF.

When the milk of a diseased cow is definitely restricted by notice served either under the Tuberculosis Order by ourselves or under the Milk and Dairies Act by the County Medical Officer, it is obviously impracticable to supervise the disposal of the product of the animal each morning and evening. We have to trust to the honour of the producer when he states that he will destroy it or boil or scald it before using it to feed calves, pigs, or hens.

#### (d) Observations in regard to—

##### (1) TUBERCULOSIS AMONG DAIRY COWS IN THE DISTRICT.

A perusal of Table IV will show the work done under the Tuberculosis Order during the year.

It is certain that during 1931, when the veterinary inspection of dairy herds will be trebled, there will be a very great increase

in the number of cases dealt with as amenable to the Order, and it should be possible to regard our work as eradivative in its effect.

In no case during 1930 was our opinion sought officially in matters of meat inspection, although it is a matter of common occurrence to find us in consultation with the Meat Inspectors in regard to certain border-line cases dealt with by us under the Tuberculosis Order. Such consultations are mutually helpful to the Meat Inspectors and ourselves in the making of decisions under two enactments that are not quite parallel in their estimate of the importance of combinations of tuberculous lesions as they are found in the carcasses and organs of animals slaughtered under the Tuberculosis Order.

It is still evident that many tuberculous animals that ought to have been reported under the Tuberculosis Order find their way direct or through a dealer to the slaughterhouse from herds within the County. In my last Report I suggested the advantage that would accrue if we were apprised of these cases by the Public Health Department, not necessarily to bring the owner under disciplinary action, but so that we might at once inspect the herd from which an advanced case of tuberculosis had come to ensure that proper disinfection of the stall of the animal was carried out.

The future increased inspection of herds will materially reduce these cases, for they will be detected, but cases may still crop up during the intervals of inspection which the owners may elect to dispose of without regard to their obligations under the Tuberculosis Order.

## (2) THE NUMBER OF COWS FOUND TUBERCULOUS ON CLINICAL EXAMINATION OF HERDS.

Table IV sets out not only the number of cases of Tuberculosis of the Udder detected by us, but also cases of Tuberculous Emaciation, Chronic Cough, &c., which revealed some suspicion of their state of health by loss of flesh, the exhibition of chronic cough, the presence of sputum on the wall, and other signs of ill-health suggestive of those forms of Tuberculosis coming under the scope of the Order.

(3) THE NUMBER OF COWS FOUND TUBERCULOUS AFTER  
TUBERCULIN TEST.

Forty-four animals condemned under the Tuberculosis Order had been tested with tuberculin.

It is worthy of note that in cases of acute Phthisis (miliary tuberculosis of the lungs) and in other acutely febrile cases, involving extensively the pleuræ and peritoneum, when the clinical evidence of disease afforded by the ordinary methods of examination is not too conclusive, the ophthalmic has proved much more helpful than any other tuberculin test, for it has yielded in many cases a positive result at an early stage when the intradermal result was quite negative or only mildly suggestive of reaction.

(4) TOTAL NUMBER OF COWS TO WHICH THE TUBERCULIN TEST  
WAS APPLIED UNDER SECTION 22.

In one newly-established upland herd of 15 cows, six 3-year-olds in milk were found to be coughing persistently, and, as some of them showed evidence of bronchial catarrh, it was decided, with the owners' consent, to test them with tuberculin.

Only one reacted, and the presumption was that the coughing was due to Parasitic Bronchitis (hoose), a disease in young animals that is very common in the district.

In another commercial herd, comprising about 30 cows-in-milk (mostly aged animals), from which I removed several cows under the Tuberculosis Order during the year, I expressed to the owner my opinion that the whole herd was badly infected with tuberculosis, and that many of the animals would gradually become amenable to the Tuberculosis Order. With his consent and in order to test the matter, I applied two tuberculin tests to 11 animals selected by him as cows in the best of health. Ten of the cows reacted fully and one yielded a comparatively small reaction rather positive in character. Of these reacting animals, all regarded as tuberculous, none was at that time amenable to the Tuberculosis Order.

It is our experience that commercial herds maintained by the periodic purchase of aged cows from public marts carry a very high percentage of reactors to tuberculin. In too many cases they have had the opportunity of receiving infection in several herds of which they were a member for a lactation period.

(5) AN ACCOUNT OF STEPS TAKEN TO SECURE A TUBERCLE-FREE MILK SUPPLY.

We continue to urge on owners of self-supporting herds, who purchase no bovines but an occasional bull, the advantages of having animals entirely free of tuberculosis, and on occasion a new herd is added to the list of those graded under the Milk (Special Designations) Order (Scotland).

It cannot be said that the market for graded milk has extended during 1930, and it is not likely to increase before the return of better industrial conditions.

The market for milk of all kinds was in a very unstable state during the whole of 1930 in the West of Scotland.

(6) A LIST OF DAIRIES HOLDING MILK LICENCES IN RESPECT OF TUBERCLE-FREE HERDS.

CERTIFIED.

Owner and Premises.	Average number of Herd.	Estimated number of gallons produced per annum.
James G. Gilchrist, Auchtygemmell, Lesmahagow.	42	25,672 gallons.
Wm. Fleming, Auldtou, Ashgill.	62	26,280 „
Harry Roscoe, Boghead, Crawford.	11	5,840 „
Eben. More & Co., Brackenhirst, Airdrie.	78	27,010 „
James Hodge, Brownhill, Carnwath.	28	12,775 „
Rt. Hon. Lord Hamilton, Dalzell, Motherwell.	44	28,714 „
Corporation of Glasgow, Gartloch Mental Hospital, Gartcosh.	110	64,240 „
County of Lanark, Hairmyres, East Kilbride.	55	27,862 „
Lanarkshire Mental Hospitals Joint Committee, Hartwood, Shotts.	80	47,207 „
J. & T. Blackwood, Hill of Kilncadzow, Carluke.	55	24,820 „
John Hamilton, Low Mains, East Kilbride.	53	19,893 „
Andrew Murdoch, Teaths, Lesmahagow.	52	18,250 „
John Russell, Walston Mansion, Dunsyre.	58	27,010 „
James Wilson, Westburn, Cambuslang.	22	15,421 „
		<u>370,994 „</u>

## GRADE A (T.T.)

Owner and Premises.	Average number of Herd.	Estimated number of gallons produced per annum.
John Struthers, Anston, Dunsyre.	56	26,280 gallons.
Gavin Hamilton, Auldtoun, Lesmahagow.	48	20,927 „
Hugh C. Brown, Birkwood Mains, Lesmahagow.	39	19,710 „
Lindsay Steele, Blackhill, Crossford.	41	19,163 „
John Fairie, Low Blackwoodyards, Kirkmuirhill.	43	22,509 „
Donald Ian Brown, Bushelhead, Carluke.	7	3,529 „
Alexr. Wilson, South Carnduff, Strathaven.	38	14,965 „
James A. Brown, Cormiston Towers, Biggar.	57	20,988 „
John Cadzow, Craighead, Carluke.	46	20,988 „
Thos. Pate, Jr., South Draffan, Kirkmuirhill.	52	28,653 „
A. & J. Gilchrist, Low Drumclog, Strathaven.	45	16,973 „
R. & T. Scott, Eastertown Douglas Water.	19	12,410 „
S. A. Ballantyne, Eastwood, Lesmahagow.	47	24,699 „
Walter Adamson, Harleyholm, Thankerton.	44	24,638 „
John Speir, Ltd., Heatheryknowe, Bargeddie.	59	19,163 „
T. B. McGregor, Lesserlinn, Lanark.	62	24,090 „
R. & W. Wallace, Linnhead, Sandilands.	44	20,258 „
Thos. Scott, Netherhall, Sandilands.	39	25,185 „
The Earl of Home, Newmains, Douglas.	28	10,950 „
John Kirkwood, Scorrieholm, Lesmahagow.	40	22,813 „
Thos. C. Stewart, Southfield, Blackwood.	65	27,375 „
Mrs. Murray, Stramolloch, Chapelton.	39	17,885 „
John Strachan, Udstonhead, Strathaven.	42	28,014 „
James Barr, Whiteshaw, Carluke.	56	26,828 „
T. & W. Ballantyne, Woods, Auchenheath.	30	16,669 „
		<hr/> 515,662 „ <hr/>



It has to be reported that, for lack of a sufficient market, upwards of 50 per cent. of the produce of the certified herds is sold in bulk as Grade A (T.T.), and some of it actually as "ordinary" milk.

Similarly, and especially in the past year, a considerable quantity of the produce of the Grade A (T.T.) herds has been sold as "ordinary" milk.

(7) A NOTE OF THE NUMBER OF ANY OTHER DAIRIES KNOWN TO HAVE TUBERCLE-FREE HERDS, WITH THE AVERAGE NUMBER OF ANIMALS AND THE ESTIMATED NUMBER OF GALLONS PRODUCED PER ANNUM.

It cannot be said that the number (30) put down in last year's report has been materially added to, as economic conditions have caused dairymen to husband their resources and cut out all avoidable increased expenditure.

For that reason, and because the prospect of getting a ready sale for additional supplies of graded, tubercle-free milk was remote throughout the year, I estimate that there was less tuberculin used by private Veterinary Surgeons in the testing of ungraded herds than in any of the previous five years.

(8) A NOTE OF ANY GENERAL DIFFICULTIES WHICH ARE FOUND BY PRODUCERS TO MILITATE AGAINST THE SUCCESSFUL MARKETING OF CERTIFIED AND GRADE A (TUBERCULIN-TESTED) MILK, WITH ANY SUGGESTIONS FOR MEETING SUCH DIFFICULTIES.

The regrettable industrial conditions during the whole year effectively held up the expansion and actually caused a decline in the marketing of milk of the two higher grades. Moreover, the contract of the East Kilbride Dairy Farmers' Company for the daily supply of 354 gallons of Grade A (T.T.) milk to the Corporation of Glasgow was lost in May, 1930. This materially affected the sale of Grade A (T.T.) milk as such, and depreciated the value of the produce of many of our graded herds which had provided the milk for that contract.

(e) Notes on any Samples taken for Examination in terms of  
Section 21 of the Act of 1914.

No such samples were taken during 1930.

**(f) A Statement of the Extent to which Sections 13 and 14 of the Milk and Dairies (Scotland) Act are being complied with.**

Refer to Table IV for all cases of tuberculosis amenable to the Tuberculosis Order.

There was no change in procedure during the year in regard to the cow that has suffered an attack of mastitis or weed of the udder. In this connection, it is worthy of note that research workers during the past year have shown that there was not sufficient evidence that the streptococci of mastitis were pathogenic when ingested by animals or man, and that the ordinary streptococci of mastitis were entirely distinct from human streptococci biochemically and serologically.

Notwithstanding the volume of work we have done in taking samples from the weeded quarters of cows, such cases are seldom reported to us under the Milk and Dairies Act.

We continue to take notes of defects in cowsheds on our herd sheets, and these are passed on to the Sanitary Department, whose duty it is in this County to control everything in regard to buildings, &c.

In no case during the year was our advice asked for in regard to plans for the construction of new or the reconstruction of old cowsheds.

**WORK DONE UNDER THE MILK (SPECIAL DESIGNATIONS) ORDER  
(SCOTLAND), 1930.**

Refer to list under **(d) (6)**.

The number of herds within the County licensed for the production of graded milk at 31st December, 1930, was 14 Certified herds, 25 Grade A (Tuberculin-tested) herds, a total of 39 tubercle-free herds. Grade A, 5 herds.

This shows, in comparison with the figures for 1929, the same number of Certified licences, an increase of 2 Grade A (T.T.) and an increase of 1 Grade A.

Of our 39 tubercle-free graded herds, 24 herds became eligible as at 31st December, 1930, to be tested only once a year. In terms of the Order, the other 15 herds will continue to be tested twice per annum until under two successive testings no reactor has been disclosed.

Acting on instructions contained in the circular of the Department of Health for Scotland, Foods Circular No. 20, 1929, of 2nd December, 1929, the double intradermal test *alone* was used on and after 1st January, 1930.

During 1930 we tested 27 herds once and 12 herds twice, and the average number of animals tested per herd was 49.

The total number of reactors detected in graded herds during the year was 33, an average of 0.84 per cent. per herd per annum. 1 herd had 10 reactors, 1 herd had 7 reactors, 1 herd had 4 reactors, 2 herds had each 2 reactors, and 8 herds had each 1 reactor.

As in former years, all reacting animals were put into immediate isolation, and were disposed of by slaughter or otherwise.

When we encountered doubtful reactors, they were put into isolation, some were disposed of, and in a few cases re-testing was done after the lapse of three months or so, when it was usually possible to come to a definite decision regarding the nature of the reaction.

During the three days when the tuberculin-testing of each graded herd is in process, a clinical examination of the members of the herd is made, and, in addition, 68 further clinical examinations of herds and relative score-card assessments were carried out.

Appendix I to my Annual Report for 1928 embodied an article published by my Assistant and myself, which exhibited our conclusions in regard to controversial problems associated with the tuberculin-testing of cattle. *Inter alia*, we discussed "The Incubation of Tuberculous Infection and the Development of the Capacity to react," and emphasised our view that, after exposure to infection, "the period of latency or incubation" before the capacity to react to tuberculin is established varies within comparatively wide periods of time.

Added experience has only served to confirm these opinions, and, although at the time of publication they were not entertained by the great majority of the members of the veterinary profession, there is now considerable evidence that they are steadily gaining acceptance.

Without exception, owners of tubercle-free herds in Lanarkshire have now a perfect understanding of the absolute need, where the herd

is not fully self-supporting, of purchasing only such animals as can be obtained from immaculate sources.

Despite the danger to a tubercle-free herd of introducing an animal that has passed a single test, whatever its exposure to infection may have been, this procedure is not illegal under the Regulations of the Department of Health, but our owners of Certified and Grade A (T.T.) herds fully realise this danger, and avoid it at all costs.

The danger has been illustrated over and over again in our experience.

#### SCORE-CARDS.

The official score-card in use for graded herds allows a maximum of 30 marks for equipment and 70 for methods.

The average score-card of 5 herds shows between 90 and 100 marks, 12 herds have between 80 and 89 marks, 11 herds have between 70 and 79 marks, and 16 herds have between 60 and 69 marks.

The average score-card marking of 44 graded herds was 77.6 per cent.

#### ANIMALS FROM TUBERCLE-FREE HERDS AT CATTLE SHOWS.

On 15th May, 1930, the Department of Health for Scotland issued Foods Circular No. 22, 1930, under the Milk (Special Designations) Order (Scotland), which sets out the restrictive conditions of isolation under which animals belonging to Certified and Grade A (Tuberculin-tested) herds may, with safety, be allowed to be exhibited at Agricultural Shows in competition with untested bovines.

We attended four Agricultural Shows during the year, and arranged for the effective isolation of such animals in the showyards before, during, and after competition, and for the provision of separate food, food vessels, and drinking vessels.

In no case was it necessary to inspect any other accommodation of the animals than that required in the showyard, as all the animals left home and returned on the day of the show.

TABLE I.

STATEMENT SHOWING THE NUMBER OF HERDS INSPECTED AND THE  
NUMBER OF COWS EXAMINED DURING THE YEAR 1930.

		Upper Ward.	Middle Ward.	Lower Ward.	Total.
Herds inspected,	...	733	912	109	1,754
Cows examined,	...	13,070	18,758	2,627	34,455

TABLE II.

STATEMENT SHOWING THE NUMBER OF COWS FOUND TO HAVE  
ABNORMAL CONDITIONS OF THE UDDER.

				Upper Ward.	Middle Ward.	Lower Ward.	Total.
Tuberculosis,	...	...	...	32	41	1	74
Atrophy,	...	...	...	418	609	118	1,145
Mammitis,	...	...	...	18	39	6	63
Induration (non-tubercular),	...	...	...	233	291	30	554
Eruption on Teats,	...	...	...	16	95	4	115

TABLE III.

STATEMENT SHOWING THE NUMBER OF SAMPLES TAKEN  
AND THE RESULTS OF THE EXAMINATION.

				Upper Ward.	Middle Ward.	Lower Ward.	Total.
Number of samples taken,	...	...	...	321	461	37	819
Number found to contain tubercle bacilli, ..	...	...	...	32	43	1	*76
Number found to contain other infectious organisms, ...	...	...	...	71	141	14	†226
Number negative, ...	...	...	...	218	277	22	517

\* Taken from 74 cows. 1 sample also contained other infectious organisms.

† Taken from 224 cows.

TABLE IV.

\*STATEMENT SHOWING THE NUMBER OF ANIMALS SLAUGHTERED UNDER THE TUBERCULOSIS ORDER OF 1925.

District.	Tuberculosis of the Udder.			Tuberculous Emaciation.			Chronic Cough, &c.			Totals
	Total No.	Found on Herd Inspection.		Total No.	Found on Herd Inspection.		Total No.	Found on Herd Inspection.		
		No.	%.		No.	%.		No.	%.	
Upper Ward,	25	17	68	11	—	—	32	7	21.9	68
Middle Ward,	38	29	76.3	26	4	15.4	115	50	43.5	179
Lower Ward,	1	1	100	3	—	—	5	3	60	9
Totals,	64	47	81.4 %.	40	4	15.4 %.	152	60	41.8 %.	256

\* See Map (Appendix).

TABLE V.

STATEMENT SHOWING THE NUMBER OF CASES, BOTH NEGATIVE AND POSITIVE, REPORTED UNDER THE TUBERCULOSIS ORDER, OR DETECTED DURING THE ROUTINE INSPECTION OF DAIRY HERDS.

Owner.		Private Veterinary Surgeons.		Veterinary Inspectors of other Local Authorities.		Detected by County Veterinary Inspector.		Totals.	
		Pos.	Neg.	Pos.	Neg.	Pos.	Neg.		
Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.
100	142	40	31	2	4	114	130	256	307

TABLE VI.

STATEMENT SHOWING RESULT OF POST-MORTEM EXAMINATION OF ANIMALS SLAUGHTERED UNDER THE TUBERCULOSIS ORDER OF 1925.

		Tuberculosis of the Udder.	Tuberculous Emaciation.	Chronic Cough, &c.	Totals.
"Advanced,"	...	39	27	79	145
"Not Advanced,"	...	33	12	66	111
		72	39	145	256



**Contraventions of the Tuberculosis Order of 1925.**

All contraventions of the Tuberculosis Order of 1925 were reported to the Diseases of Animals Committee of the County Council, and were dealt with either by the sending of suitable letters of warning or by the institution of legal proceedings against the persons concerned.

**Burghs of Biggar and Lanark.**

In the Burgh of Lanark 3 herds, comprising 31 cows, were examined. In no case did we find any evidence of tuberculosis of the udder, nor did our inspections reveal any case amenable to the Tuberculosis Order.

There are now no dairy cows kept in the Burgh of Biggar.

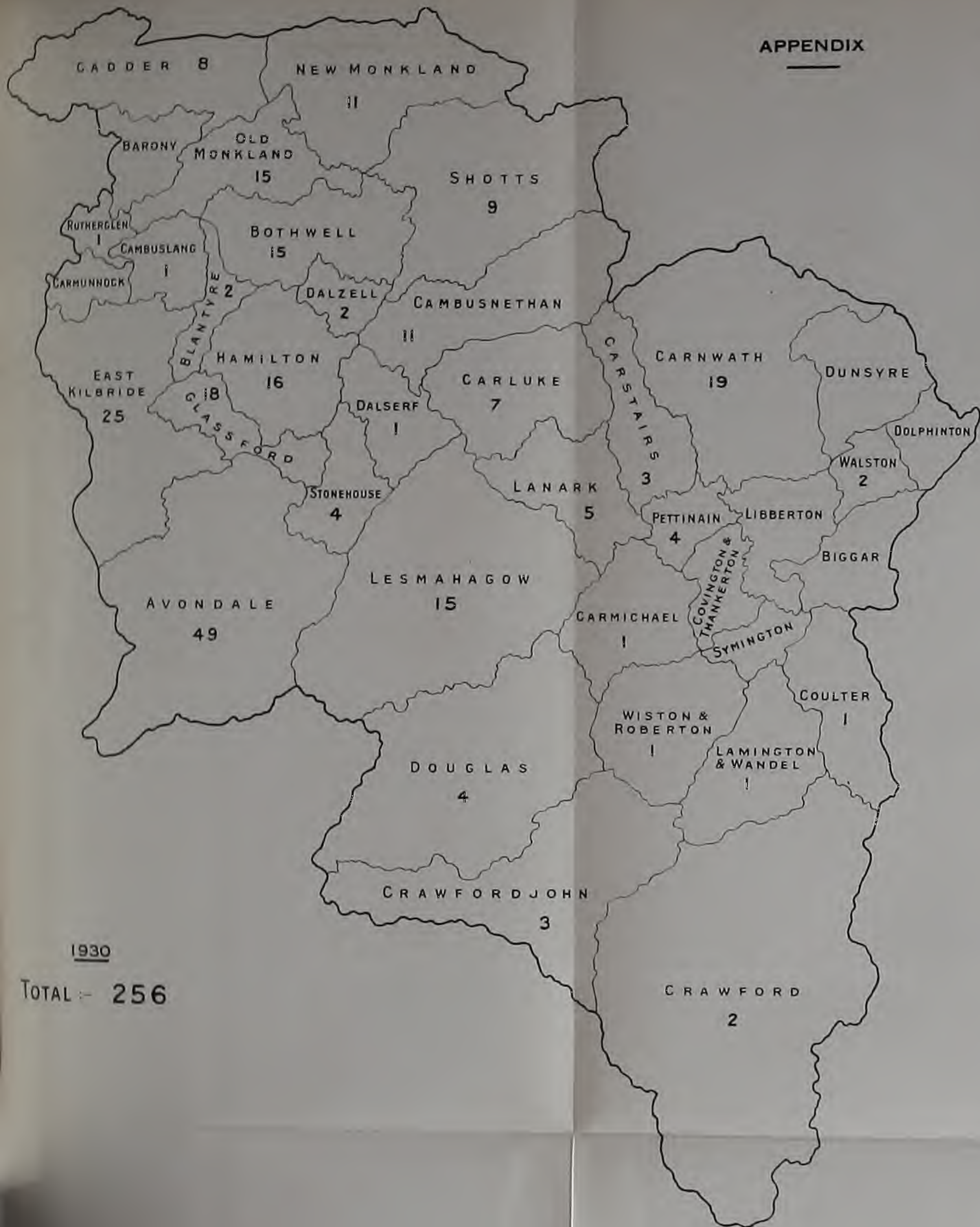
I have the Honour to be,

My Lords and Gentlemen,

Your obedient Servant,

HUGH BEGG, F.R.C.V.S.,  
*County Veterinary Inspector.*

# APPENDIX



1930

TOTAL - 256

